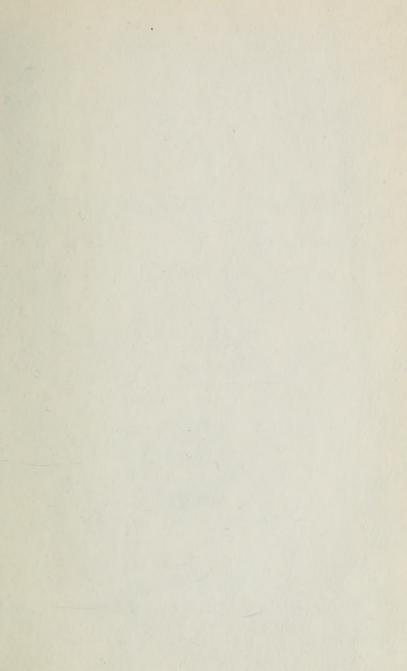


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THE

MEDICAL SCHOOL

1904-05

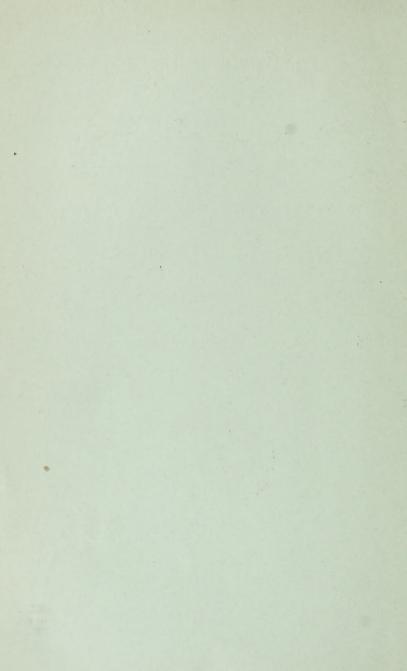
SECOND EDITION



CAMBRIDGE, MASS.

Published by Barvard University

November 10, 1904



ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

(688 BOYLSTON STREET, BOSTON, MASS.)

OF

HARVARD UNIVERSITY

FOR

1904-05

SECOND EDITION



CAMBRIDGE
Published by the University
1904

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MEDICAL SCHOOL CALENDAR.

1904.

- Sept. 22, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 28, Wednesday. Examination in Chemistry for admission.
- Sept. 29, Thursday. Academic Year begins. Registration of Students.
- Oct. 1, Saturday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Tuesday. Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 24, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Wednesday. Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1904, TO JAN. 2, 1905, INCLUSIVE. 1905.

- Jan. 2, Monday. Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 14, Saturday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1905.
- Jan. 30, Monday. Mid-year Examinations begin.
- Feb. 1, Wednesday. Second half-year begins.
- Feb. 22, Wednesday. Washington's Birthday: a holiday.
- April 1, Saturday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 16 TO APRIL 22, INCLUSIVE.

May 1, Monday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.

- May 1, Monday. Last day for receiving applications of candidates for the degree of M.D. in 1905.
- May 30, Tuesday. Memorial Day: a holiday.
- June 1, Thursday. Last day for receiving applications for Scholarships for 1905-06 (except the Cheever and Hayden Scholarships).
- June 1, Thursday. Examinations begin.
- June 28, Wednesday. Commencement.
- June 29, Thursday. Examination in Chemistry for admission.
- Summer Vacation of Thirteen Weeks, from Commencement to September 27, inclusive.
- Sept. 21, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Wednesday. Examination in Chemistry for admission.
- Sept. 28, Thursday. Academic Year begins. Registration of Students.
- Oct. 2, Monday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Wednesday. Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 30, Thursday. Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL.

FACULTY OF MEDICINE.*

CHARLES W. ELIOT, A.M., LL.D., PRESIDENT.

WILLIAM L. RICHARDSON, M.D., DEAN, and Professor of Obstetrics.

HENRY P. BOWDITCH, M.D., LL.D., D.Sc., George Higginson Professor of Physiology.

CLARENCE J. BLAKE, M.D., Professor of Otology.

J. COLLINS WARREN, M.D., LL.D., Hon. F.R.C.S. (Eng.), Moseley Professor of Surgery.

REGINALD H. FITZ, M.D., Hersey Professor of the Theory and Practice of Physic.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy. JOHN H. McCOLLOM, M.D., Assistant Professor of Contagious Diseases.

JAMES J. PUTNAM, M.D., Professor of Diseases of the Nervous System. EDWARD S. WOOD, M.D., Professor of Chemistry.

FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical Medicine.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery. CHARLES A. BRACKETT, D.M.D., Professor of Dental Pathology.

FRANCIS H. DAVENPORT, M.D., Assistant Professor of Gynaecology.

THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.

EUGENE H. SMITH, D.M.D., Professor of Mechanical Dentistry and Orthodontia, and Dean of the Dental School.

WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum. CHARLES S. MINOT, S.D., LL.D., Sc.D., Professor of Histology and Human Embryology.

MAURICE H. RICHARDSON, M.D., Professor of Clinical Surgery. CHARLES M. GREEN, M.D., Associate Professor of Obstetrics and Clinical Gynaecology, and Secretary of the Faculty of Medicine.

^{*} Arranged here and elsewhere in the Catalogue, with the exception of the President and Dean, on the basis of collegiate seniority.

EDWARD C. BRIGGS, M.D., D.M.D., Professor of Dental Materia Medica and Therapeutics.

WILLIAM T. COUNCILMAN, M.D., Shattuck Professor of Pathological Anatomy.

HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.
MYLES STANDISH, M.D., Assistant Professor of Ophthalmology.
HAROLD C. ERNST, M.D., Professor of Bacteriology.

CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene.

WILLIAM H. POTTER, D.M.D., Professor of Operative Dentistry.

JOHN T. BOWEN, M.D., Assistant Professor of Dermatology.

GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine.
FRANZ PFAFF, M.D., Assistant Professor of Pharmacology and
Therapeutics.

THEOBALD SMITH, M.D., George Fabyan Professor of Comparative Pathology.

WILLIAM T. PORTER, M.D., Associate Professor of Physiology. FRANK B. MALLORY, M.D., Associate Professor of Pathology.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

WALTER B. CANNON, M.D., Assistant Professor of Physiology. JOHN WARREN, M.D., Demonstrator of Anatomy.

STANDING COMMITTEES FOR THE MEDICAL SCHOOL.

Course of Study. — Dr. Fitz (Chairman), and Drs. Bowditch, W. L. Richardson, Dwight, Shattuck, Bradford, and Mallory.

Nominations. — Dr. Burrell (Chairman), and Drs. Ernst, Harrington, Bowen, and J. Warren.

Graduate and Summer Courses. — Dr. Bradford (Chairman), and Drs. Putnam, Green., Mallory, and Cannon.

Admission. — Dr. W. L. Richardson (Chairman), and Drs. Green and Mallory.

Students' Health. — Dr. Ernst (Chairman), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

THE MEDICAL SCHOOL.

BOSTON.

GENERAL STATEMENT.

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of Bachelor of Medicine; beginning with 1811, the degree has been Doctor of Medicine. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first Medical College was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Physiological and Pathological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work will be required of each fourth year student; and courses will be offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. A committee of the Faculty will advise students in regard to their selection of courses. The new elective curriculum of the fourth year will begin in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 51.

The degree of Doctor of Medicine cum lande is given to candidates who obtain an average of 80 per cent or over in all the required examinations.

Besides the required and elective courses in the regular system of instruction, there have been established a number of optional lecture and laboratory courses which prepare for, or supplement, many of the required subjects.

Pamphlets descriptive of the many Courses of Study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Dean of the Harvard Medical School, 688 Boylston Street, Boston, Mass.

ADMINISTRATIVE BOARD.

WILLIAM L. RICHARDSON, M.D., DEAN, and Professor of Obstetrics.
J. COLLINS WARREN, M.D., LL.D., Hon. F.R.C.S., Professor of Surgery.

EDWARD S. WOOD, M.D., Professor of Chemistry.

FREDERICK C. SHATTUCK, M.D., Professor of Clinical Medicine. WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum.

CHARLES M. GREEN, M.D., Secretary, and Associate Professor of Obstetrics and Clinical Gynaecology.

CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene. FRANK B. MALLORY, M.D., Associate Professor of Pathology. WALTER B. CANNON, M.D., Assistant Professor of Physiology.

Office Hours of the Dean, Tuesday and Friday, 12.15 to 1 p.m.; of the Secretary, Monday and Thursday, 12 to 1 p.m.

STANDING COMMITTEES.

Building. — Dr. Wood (Chairman), and Drs. W. L. Richardson and Whitney.

Advertising and Catalogue. — Dr. Wood (Chairman), and Drs. Green and Mallory.

Library. — Dr. Shattuck (Chairman), and Drs. Harrington and Cannon. Warren Museum. — Dr. Warren (Chairman), and Drs. Whitney and Mallory.

Fellowships. — Dr. Shattuck (Chairman), and Drs. Warren, Whitney, Harrington, and Mallory.

Scholarships and Students' Aid. — Dr. W. L. Richardson (Chairman), and Drs. Green and Cannon.

INSTRUCTORS, LECTURERS, AND ASSISTANTS.*

EDWARD COWLES, M.D., LL.D., Clinical Instructor in Mental Diseases.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

HENRY H. A. BEACH, M.D., Lecturer on Surgery.

GEORGE W. GAY, M.D., Lecturer on Surgery.

ABNER POST, M.D., Instructor in Syphilis.

ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.

THOMAS A. DE BLOIS, M.D., Clinical Instructor in Laryngology.

JOHN W. ELLIOT, M.D., Lecturer on Surgery.

JOHN W. FARLOW, M.D., Clinical Instructor in Laryngology.

CHARLES F. WITHINGTON, M.D., Instructor in Clinical Medicine.

SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

GEORGE H. MONKS, M.D., M.R.C.S., Lecturer on Surgery.

GEORGE L. WALTON, M.D., Clinical Instructor in Diseases of the Nervous System.

FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery.

FRANCIS B. HARRINGTON, M.D., Lecturer on Surgery.

PHILIP COOMBS KNAPP, M.D., Clinical Instructor in Diseases of the Nervous System.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

HENRY JACKSON, M.D., Instructor in Clinical Medicine.

ALGERNON COOLIDGE, JR., M.D., Clinical Instructor in Laryngology. ROBERT W. LOVETT, M.D., Assistant in Orthopedics.

^{*} Arranged here and elsewhere in the Catalogue on the basis of collegiate seniority.

JOHN C. MUNRO, M.D., Lecturer on Surgery.

WILLIAM NOYES, M.D., Clinical Instructor in Mental Diseases.

ELLIOTT G. BRACKETT, M.D., Assistant in Orthopedics.

ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.

FREDERIC C. COBB, M.D., Assistant in Laryngology.

 ${\bf EDWIN} \ {\bf E.} \ {\bf JACK}, \ {\bf M.D.}, \ {\it Assistant in Ophthalmology}.$

JAMES O. JORDAN, Ph.G., Assistant in Materia Medica.

PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery.

GEORGE A. CRAIGIN, M.D., Clinical Instructor in Pediatrics.

JOEL E. GOLDTHWAIT, M.D., Assistant in Orthopedics.

JAMES G. MUMFORD, M.D., Instructor in Surgery.

MALCOLM STORER, M.D., Assistant in Gynaecology.

SAMUEL S. MAXWELL, Ph.D., Instructor in Physiology.

JOHN B. BLAKE, M.D., Instructor in Surgery.

WILLIAM A. BROOKS, Jr., M.D., Assistant in Surgery.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

ELISHA FLAGG, M.D., Assistant in Anatomy.

JAMES M. JACKSON, M.D., Assistant in Clinical Medicine.

HOWARD A. LOTHROP, M.D., Instructor in Surgery.

JOHN L. MORSE, M.D., Instructor in Pediatrics.

ALEXANDER QUACKENBOSS, M.D., Assistant in Ophthalmology.

FRANKLIN G. BALCH, M.D., Assistant in Surgery.

EUGENE A. CROCKETT, M.D., Assistant in Otology.

JOHN DANE, M.D., Assistant in Orthopedics.

FRED B. LUND, M.D., Assistant in Surgery.

CHARLES A. PORTER, M.D., Instructor in Surgery.

EDWARD W. TAYLOR, M.D., Assistant in Neurology.

GEORGE W. W. BREWSTER, M.D., Assistant in Surgery.

RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.

ROCKWELL A. COFFIN, M.D., Assistant in Laryngology.

JOHN M. CONNOLLY, M.D., Assistant in Chemistry.

PHILIP HAMMOND, M.D., Assistant in Otology.

HENRY H. HASKELL, M.D., Assistant in Ophthalmology.

HENRY F. HEWES, M.D., Instructor in Clinical Chemistry.

ELLIOTT P. JOSLIN, M.D., Assistant in the Theory and Practice of Physic.

CALVIN G. PAGE, M.D., Assistant in Bacteriology.

C. MORTON SMITH, M.D., Assistant in Syphilis.

CHARLES J. WHITE, M.D., Instructor in Dermatology.

FRANKLIN W. WHITE, M.D., Assistant in the Theory and Practice of Physic.

JAMES H. WRIGHT, M.D., Instructor in Pathology.

ERNEST A. CODMAN, M.D., Assistant in Surgery.

FRANCIS P. DENNY, M.D., Assistant in Clinical Medicine.

WILLIAM H. ROBEY, JR., M.D., Assistant in Bacteriology, and in Clinical Medicine.

GEORGE S. C. BADGER, M.D., Assistant in the Theory and Practice of Physic.

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ROBERT B. GREENOUGH, M.D., Assistant in Surgery.

DANIEL F. JONES, M.D., Assistant in Surgery.

HARRIS P. MOSHER, M.D., Assistant in Anatomy, and in Laryngology.

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WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.

ERNEST B. YOUNG, M.D., Assistant in Gynaecology.

CHARLES S. BUTLER, M.D., Assistant in Anatomy.

JAMES C. DONOGHUE, M.D., Assistant in Histology.

HIBBERT W. HILL, M.D., Instructor in Bacteriology.

WALTER A. LECOMPTE, M.D., Assistant in Otology.

HENRY O. MARCY, JR., M.D., Assistant in Anatomy.

FRED M. SPALDING, M.D., Assistant in Ophthalmology.

HOWARD T. SWAIN, M.D., Assistant in Obstetrics. LEROI G. CRANDON, M.D., Assistant in Surgery.

LINCOLN DAVIS, M.D., Instructor in Anatomy.

ROBERT L. EMERSON, M.D., Instructor in Physiological Chemistry.

EUGENE E. EVERETT, M.D., Assistant in Bacteriology.

MAYNARD LADD, M.D., Assistant in Pediatrics.

GEORGE B. MAGRATH, M.D., Assistant in Pathology.

JOSEPH H. PRATT, M.D., Assistant in the Theory and Practice of Physic.

DAVID H. WALKER, M.D., Assistant in Hygiene.

HENRY A. CHRISTIAN, M.D., Instructor in Pathology.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.

JAMES R. TORBERT, M.D., Assistant in Obstetrics.

GEORGE A. WATERMAN, M.D., Assistant in Neurology.

CARL L. ALSBERG, M.D., Assistant in Physiological Chemistry.

JOHN L. BREMER, M.D., Instructor in Histology and Embryology.

CHARLES H. DUNN, M.D., Assistant in Pediatrics.

CLARENCE W. KEENE, M.D., Assistant in Neuropathology, and in Pathology.

EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

MAURICE P. O. VEJUX-TYRODE, M.D., Instructor in Pharmacology.

RICHARD G. WADSWORTH, M.D., Assistant in Anatomy.
ERNEST DEW. WALES, M.D., Assistant in Otology.
WALTER R. BRINCKERHOFF, M.D., Assistant in Pathology.
DAVID CHEEVER, M.D., Assistant in Anatomy.
FREDERIC T. LEWIS, M.D., Instructor in Histology and Embryology.
FRED T. MURPHY, M.D., Assistant in Anatomy.
DAVID D. SCANNELL, M.D., Assistant in Anatomy.
ELMER E. SOUTHARD, M.D., Instructor in Neuropathology.
ERNEST E. TYZZER, M.D., Assistant in Pathology.
GEORGE L. BAKER, M.D., Assistant in Bacteriology.
SAMUEL ROBINSON, M.D., Assistant in Anatomy.

AUSTIN TEACHING FELLOWS.

LANGDON FROTHINGHAM, M.D.V., in Bacteriology. EWING TAYLOR, M.D., in Histology and Embryology. FRANK L. RICHARDSON, M.D., in Surgery. HERBERT R. BROWN, B.S., in Comparative Pathology.

THE MEDICAL SCHOOL.

ADMISSION OF STUDENTS.

Candidates for admission to this School must present a degree in Arts, Literature, Philosophy, or Science from a recognized college or scientific school, with the exception of such persons, of suitable age and attainments, as may be admitted by a special vote of the Administrative Board in each case.*

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis sufficient to fit them to pursue the courses in Chemistry given at the Medical School;† or, failing in this, to pass an examination in General Chemistry and Qualitative Analysis. Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry; but no student will be permitted to take part in any exercise of the third class, or to present himself for examination in the subjects of that class, until deficiencies in General Chemistry and Qualitative Analysis have been made up.

The admission examination in General Chemistry (at which time also the note-books in Qualitative Analysis must be handed in) is held at the Medical School, 688 Boylston St., Boston, at 12 o'clock noon on the Thursday following the last Wednesday in June, and on the last Wednesday in September. The examination is conducted in writing. Specimen examination papers may be found in the Medical School Catalogues.

In and after September, 1907, a knowledge of elementary organic chemistry will be required for admission.

Applicants for admission to the Medical School who have studied three years in recognized colleges, technical, or scientific schools, in which courses in Human Anatomy, Physiology, Histology, and Physiological

† The Summer Course in General Chemistry and Qualitative Analysis given at the Medical School is adapted to students about to enter the Medical School.

^{*} The exception above referred to applies only to men who have practically finished a required course for a degree, but for some good and sufficient reason, such, for instance, as wishing to graduate with their class, prefer waiting until a later period for graduation; or to men who, without such a degree, have acquired an equivalent education and training sufficient to enable them to profit by the instruction offered in the School.

Chemistry* are a part of the instruction, may be admitted to advanced standing, provided they pass an examination in these subjects and possess the other requirements for admission.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations required in the full undergraduate course and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examinations), and June. The next year will begin September 28, 1905.

DIVISION OF STUDENTS.

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, including the admission examinations in Chemistry, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register on Thursday, the first day of the academic year.

Beginning with the academic year 1906-07 students of the third and fourth years will be required to devote themselves exclusively to the work of the School.†

Students who began their professional studies in other recognized Medical Schools may be admitted to advanced standing; but all persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, and must pass examinations in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission.

Any student may obtain a certificate of his period of connection with the School.

+ The intent of this rule is that third and fourth year students may not engage in hospital work during term time, except in so far as required by the School curriculum.

^{*} The course as now given to the first-year class comprises both physiological and pathological chemistry. Men applying for advanced standing who pass in physiological chemistry but not in pathological chemistry will be admitted with a condition in pathological chemistry and given an opportunity to make up the condition either by work in that subject during the latter part of the second half-year or by taking a summer course, and passing a satisfactory examination.

DIVISION OF STUDIES.

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Electives.	Anatomy.	Advanced Histology.	Histology of the Nervous System.	Embryology.	Physiology.	Physiological Chemistry. 2	*Clinical Chemistry.	Bacteriology.	Comparative Etiology of Infections Diseases.	*Clinical Microscopy.	Operative Surgery.	† Orthopedics.	*Operative Obstetrics.	Gynaecology.	Dermatology.	Neurology.	$\dagger Ophthalmology$	† Otology.	Hygiene.
FOR THE FOURTH YEAR.	Clinical Medicine. 3	Clinical Surgery. 3	*Orthopedies.	*Syphilis.	*Ophthalmology. 1	*Otology.	*Laryngology. 1	Hygiene.	Pediatrics, Contagious Diseases.	Clinical Microscopy.	Genito-urinary Surgery.	Psychiatry.	Municipal Sanitation.						
FOR THE THIRD YEAR.	*Materia Medica and Therapeutics. 2	3 *Theory and Practice. 3	Clinical Medicine. 3	Pediatrics. 2	*Surgery (written 2 hrs., 3 practical 1 hr.)	Clinical Surgery (written 1hr., practical 1 hr.) 2	Obstetrics. 3	Gynaecology. 1	Dermatology. 1	Syphilis. 1	Neurology. 1	Psychiatry. 1	*Ophthalmology. 1	Otology. 1	Laryngology. 1	Genito-urinary Surgery.			
FOR THE SECOND YEAR.	*Bacteriology.	*Pathology. 3	Hygiene. 1	†Materia Medica and Therapeutics.	Theory and Practice.	Olinical Medicine.	Surgery.											Transmiss summer control of	
FOR THE FIRST YEAR.	*Anatomy. 3	*Histology and Embryology.	Physiology. 3	Physiological and Pathological Chemistry. 3		Publication and the state of th	And the second s												

Note:—Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates the length in hours of the examination. In the fourth year, electives must be chosen whose examinations shall aggregate three hours.

* Examination in February.

† These electives count as one-hour electives.

METHODS OF INSTRUCTION.

The following methods of instruction are adopted in the several departments \cdot —

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE TABULAR VIEWS.

B.C.H. = Boston City Hospital. B.D. = Boston Dispensary.

B.I.H. = Boston Insane Hospital (Pierce and Austin Farms).

B.L.H. = Boston Lying-in Hospital.

Ch.H. = Children's Hospital.

E and E.I. = Massachusetts Charitable Eye and Ear Infirmary.

H.M.S. = Harvard Medical School.

I.H. = Infants' Hospital.
L.I.H. = Long Island Hospital.
McL.H. = McLean Hospital.

M.G.H = Massachusetts General Hospital.

S.D.B.C.H. = South Department, Boston City Hospital.

S.H. = Samaritan Hospital.

S.O.P.D. = Surgical Out-Patient Department.

Anatomy.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

JOHN WARREN, M.D., Demonstrator of Anatomy.

ELISHA FLAGG, M.D., Assistant in Anatomy.

HARRIS P. MOSHER, M.D., Assistant in Anatomy.

Charles S. Butler, M.D., Assistant in Anatomy.

HENRY O. MARCY, Jr., M.D., Assistant in Anatomy.

LINCOLN DAVIS, M.D., Instructor in Anatomy.

RICHARD G. WADSWORTH, M.D., Assistant in Anatomy.

DAVID CHEEVER, M.D., Assistant in Anatomy.

FRED T. MURPHY, M.D., Assistant in Anatomy.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

SAMUEL ROBINSON, M.D., Assistant in Anatomy.

First year. — The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the

Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Fourth year. — There is an elective course in the dissecting room. The Demonstrator will furnish the details upon application.

Text-books.—Cunningham. Quain. Morris. Gray. Gerrish. Woolsey, Applied Anatomy.

Collateral Reading. — Dwight, Frozen Sections of a Child. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Testut. Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Tillaux, Anatomie topographique. Humphry, Human Skeleton.

FIRST YEAR.

October.

Lectures.	Professor	DWIGHT.	Nine hours w	eekly.	36
Demonstra	tions and s	study of bor	nes and joints.	Three hours daily.	72

November and December.

Lectures.	Professor	DWIGHT.	Two	hours	a	week	in	November,	three
hours	a week in .	December.							20
D	41. D.	337	277				7 ,	7 1	

Demonstrations. Dr. Warren. Four times a week to each section of the class.

Practical anatomy with recitations. Three hours a day, five times a week.

January.

Lectures and demonstrations. Professor Dwight. Daily. 24
Demonstrations. Dr. Warren. Four times a week to each section of the
class. 16

Demonstrations and study of the brain and organs of sense. Three hours a day, five times a week.

Practical anatomy with recitations. Three hours a day, five times a week.

FOURTH YEAR.

January, February, and March.

Elective course. Drs. Warren and Davis. 90

November.

Optional course in the Anatomy of the Genito-urinary System. Dr. Wadsworth.

Histology and Embryology.

Charles S. Minot, S.D., LL.D., Sc.D., Professor of Histology and Human Embryology.

JAMES C. DONOGHUE, M.D., Assistant in Histology.

John L. Bremer, M.D., Instructor in Histology and Embryology.

Frederic T. Lewis, M.D., Instructor in Histology and Embryology.

EWING TAYLOR, M.D., Austin Teaching Fellow in Histology and Embryology.

LABORATORY.

The laboratory comprises a general class room with places for ninety men, and four smaller rooms for the officers of instruction, advanced workers, and for the library and collections. There are 225 microscopes for students' use, which are let to students for three dollars a term. There are over 14,000 permanent preparations used in the class work, a histological collection illustrating most of the features of the microscopic structure of the higher animals, and an embryological collection which includes over six hundred embryos of various selected vertebrates cut into serial sections, and thoroughly catalogued. There are also numerous wax and paper models for use in the course of instruction.

The equipment includes numerous microtomes, most of the leading patterns being represented, and many other pieces of apparatus, offering altogether ample facilities for elementary and advanced work and for investigation.

The library consists of complete sets of the most important histological and embryological journals, of the standard text-books, and of a private collection, which is open to investigators, of about four thousand pamphlets. A card catalogue and a classified bibliography are maintained, which give ready access to the literature of histology and embryology.

Text-Books.—Stöhr, Manual of Histology. Böhm and von Davidoff, A Text-Book of Histology. Minot, Text-book of Embryology.

Collateral Reading. — Quain, Anatomy. Lee, Microtomist's Vademeeum. Kölliker, Gewebelehre. Minot, Human Embryology. Marshall, Vertebrate Embryology.

REGULAR COURSES.

First year. — Histology and Embryology are taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December. Every student is recommended to purchase

a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term. Each student is charged a laboratory fee of two dollars.

Fourth year. — Three elective courses are offered, (a) Embryology, (b) Advanced Histology, (c) The Histology of the Nervous System. Each of these courses occupies ten hours a week during the second term.

FIRST YEAR.

October.

Lectures. Professor Minot. Six times a week. 24
Laboratory work. Drs. Donoghue, Bremer, Lewis, and Taylor.

Three hours, five times a week. 60

November and December.

Lectures. Professor Minor. Twice a week.

16
Laboratory work. Four hours, four times a week: three hours, once a week.

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FOURTH YEAR ELECTIVES.

- (a) Embryology. Professor Minot and Drs. Lewis and Taylor. Ten hours a week, second half-year.
 (b) Advanced Histology. Professor Minot and Dr. Bremer. Ten
- (b) Advanced Histology. Professor Minor and Dr. Bremer. Ten hours a week, second half-year.
- (c) Histology of the Nervous System. Professor Minot, and Drs.

 Bremer and Lewis. Ten hours a week, second half-year. 160

GRADUATE COURSES.

I. Professor Minor with Dr. Lewis will give a course of thirty-two exercises on Elementary Human Embryology for practitioners. This course can be extended by a supplementary course of the same length. Fee, \$25.

Graduates taking these courses will be allowed the privilege of the Histological Laboratory. There will be an additional charge of \$5 for reagents and material.

II. Professor Minot with Drs. Bremer, Lewis, and Taylor will give a course intended for persons who wish to make a special study of Vertebrate or Human Embryology. This course is open to registered students of the Graduate Department of the Faculty of Arts and Sciences, and will be offered hereafter also as a special course to graduate students of the Medical School.

This course will extend through the entire year, but in two parts of one term each. The resources of the Embryological Laboratory in apparatus

and material render it possible to offer unusually favorable opportunities for both general study and special research. The course is arranged for those who, as morphologists, anatomists, and practitioners, wish to give the principal part of their time for one or more school terms to the subject. It will cover the whole field of Embryology, including the genital products, the theories of heredity and sex, the formation of the germ-layers, differentiation of the organs, the history of the placenta and the general morphology of Vertebrates or of Man. Most of the work will be done by the student in the laboratory, but there will also be formal lectures. Students taking this course will be expected to devote to it not less than eighteen hours a week.

Fee, for one term, \$75. Two terms, \$125.

The above courses I and II will be limited to twelve students in each course.

INVESTIGATION.

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology.

Henry P. Bowditch, M.D., LL.D., D.Sc., Professor of Physiology. William T. Porter, M.D., Associate Professor of Physiology. Walter B. Cannon, M.D., Assistant Professor of Physiology. Samuel S. Maxwell, Ph.D., Instructor in Physiology.

First Year. — The method of teaching Physiology consists in placing before the student the classical experiments of the science grouped in the most instructive sequence. The student himself performs as many of these as his own skill and the length of the course permit. What he does he is required to do well. The experiments selected are those which best illustrate the several groups or chapters of which physiology is composed. Preference, where possible, is given to observations used in clinical medicine. The observations which he cannot himself make the student reads with an understanding grounded on his own practical experience. The facts thus gained are discussed in conferences, written tests, formal lectures, and recitations.

In the laboratory the student works one hundred and sixty-eight hours. Each student is required to preserve the graphic records obtained in his experiments together with a brief account of his own observations. The character of the laboratory instruction may be seen from the examination questions, page 99.

The conferences, fifty-five half-hour exercises, are devoted to questions and explanations concerning the experimental work; they are, in fact, a combination of recitation and lecture.

The written tests are twenty-minute examinations held daily and one-hour examinations held weekly during fifteen weeks. The following are some of the questions: State experiments to show where stimulation begins on closure of the galvanic current. What is the reaction of degeneration? Mark on the intra-ventricular pressure curve the moment of opening and closure of the mitral and aortic valves. Give a brief account of the digestion of fat. Give evidence to show that afferent impulses are transmitted by the posterior roots of spinal nerves. Prove the existence of "hot and cold spots" on the skin. Cite experiments to show that the crystalline lens changes its shape in accommodation.

Formal lectures are held five times a week from the sixth to the fifteenth week inclusive.

One recitation is given weekly during fifteen weeks.

Special demonstrations are given every Saturday during fifteen weeks; the motor areas of the cortex of the brain, and the action of the chorda tympani nerve on the secretion of saliva are examples of the subjects chosen for demonstration.

Each student is required to write a physiological thesis the material for which must be taken directly from the report of the original investigations. In addition each student is required to prepare at least one investigation not included in those used for his thesis. About forty-five of the theses are selected for discussion by the class and staff. The subjects chosen are as a rule such as will supplement the instruction given in other ways. The discussions are held five times a week from the sixth to the fifteenth week inclusive. The discussion is opened by three students, each of whom has prepared himself upon some of the original investigations included in the theses, and is continued by the members of the class and of the staff. Among the these discussed in the last collegiate year were: The excretion of urea; Internal secretion of the pancreas; Oedema; Regeneration of blood after hemorrhage; Artificial parthenogenesis; and Aphasia.

Fourth year. — An elective laboratory course in Physiological Research is offered.

Text-books. — Text-book of Physiology, edited by E. A. Schäfer. Foster, Text-book of Physiology. American Text-book of Physiology. Waller, Human Physiology. Hermann, Lehrbuch der Physiologie. Porter, Introduction to Physiology.

FIRST YEAR (Second half).

- Laboratory experiments. Professor Porter, Assistant Professor Cannon, and Dr. Maxwell. Daily, except Saturday. 168
- Conferences (55). Assistant Professor Cannon. Daily except Saturday.

 First to fifteenth week, inclusive. 28
- Written tests (77). Twenty minutes daily, except Monday and Saturday.

 First to fifteenth week, inclusive. 26
- Written tests (15). One hour Mondays. First to fifteenth week, inclusive.
- Lectures (86). Professor Porter and Assistant Professor Cannon.

 Daily, except Saturday. Sixth to fifteenth week, inclusive. 43
- Special demonstrations (23). Assistant Professor Cannon. Saturdays.

 First to fifteenth week, inclusive.

 15
- Recitations (15). Professor Bowditch. Saturdays. First to fifteenth week, inclusive. 15
- Discussion of Theses (43). Daily, except Friday. Sixth to fifteenth week, inclusive.
- Thesis. Written by each student from the original sources.
- Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

THE ADVANCED COURSE.

Students in the fourth year of the Medical School may elect advanced instruction, at present consisting of one hundred and sixty hours of laboratory study, in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies side by side with the members of the Staff. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The student will be guided by personal conferences with the professor in charge, and, if desirable, by informal lectures. He may also attend the optional lectures given in May in which each member of the Staff discusses the subjects which he has himself investigated.

This course counts towards the degree of Doctor of Medicine, and an examination, largely practical, will be required.

FOURTH YEAR ELECTIVE.

Physiological and Pathological Chemistry.

EDWARD S. WOOD, M.D., Professor of Chemistry.

JOHN M. CONNOLLY, M.D., Assistant in Chemistry.

HENRY F. HEWES, M.D., Instructor in Clinical Chemistry.

ROBERT L. EMERSON, M.D., Instructor in Physiological Chemistry.

CARL L. Alsberg, M.D., Assistant in Physiological Chemistry.

First year. — The course in Physiological Chemistry extends through eight weeks and consists of a lecture, demonstration, or recitation daily, and of six laboratory exercises of two to three hours' duration a week. The course is so arranged that the student is enabled to conduct his laboratory work on the various subjects included in the course in direct connection with the lecture room instruction.

The subjects studied in this course are the carbohydrates; the proteids, their composition, relationships, chemical properties, methods of precipitation and separation; the fats; the chemistry of epithelial, connective, muscular, and nervous tissues; the chemistry of digestion; bile; blood; lymph; milk; and urine.

During the second half of the course (Pathological Chemistry), special attention is given to the clinical study of the urine. Each student examines, chemically and microscopically, a large number of specimens, and becomes thoroughly familiar with the composition of this secretion in normal and pathological conditions, and with the best methods for the detection of pathological constituents. The best methods for the quantitative determination of the more important normal and pathological constituents of the urine are also taught. The class in sections receives instruction in the diagnosis of renal and other diseases from the examination of the urines, and also has practical work in the examination of the blood and of gastric contents.

Opportunities for special investigation will be offered such students as can give the necessary time in the laboratory.

Text-books. — Hammarsten, Physiological Chemistry. Ogden, Clinical Examination of the Urine. Tyson, Practical Examination of Urine.

Collateral Reading. — Halliburton, Text-book of Chemical Physiology and Pathology. Wharton and Stillé, Medical Jurisprudence, Vol. II, on Poisons. Simon, Physiological Chemistry. Bunge, Physiologic and Pathologic Chemistry. Herter, Lectures on Chemical Pathology. Taylor on Poisons. Lea, Chemical Basis of the Animal Body (appendix to Foster's Text-book of Physiology). Vaughan and Novy, Cellular Toxins.

Fourth year. — The elective courses in Physiological and Pathological Chemistry are divided into two groups: those for undergraduates and graduates, and those primarily for graduates.

Advanced courses.—In the first group the various courses consist chiefly of advanced work in the subjects taught in the first year, viz., urine, bile, gastric contents, feees, pathological fluids and concretions, clinical examination of blood, medico-legal chemistry, etc. The various subjects will be divided into smaller groups, enabling a student to take special topics as he may desire.

Research courses. — In the second group the nature of the work will be much more advanced and consist chiefly of research work in the laboratory on special subjects to be mutually arranged with the Department. In addition to the subjects mentioned under the first group opportunity will be offered in experimental work in metabolism, medico-legal chemistry, and in other lines of advanced work, also special lines of work for those intending to fit themselves as teachers in physiological and pathological chemistry.

PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY.

FIRST YEAR.

Lectures and demonstrations. Professor Wood and Dr. Emerson. One hour four times a week.

Laboratory exercises. Professor Wood, and Drs. Connolly, Hewes, Emerson, and Alsberg. Two and a half hours a day four times a week, three and a half hours once a week.

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FOURTH YEAR ELECTIVE.

Physiological Chemistry.

- A laboratory course following the general lines of instruction in physiological chemistry given at present in the first year, to comprise more advanced work in the subjects of the first-year course. Four months must be elected. 250 hours, 2-6 p.m., Mondays, Tuesdays, Wednesdays, and Thursdays in October, November, December, and January.
- A number of research courses on special subjects. 125 to 250 hours each.
- An advanced course of 1000 hours, primarily for graduates. Only
 those previously trained in inorganic and organic chemistry will be
 admitted to this course.

Pathological and Medico-Legal Chemistry.

- 1. Advanced work on the clinical examination of the urine, particularly with reference to the diagnosis of so-called urinary diseases, and to the study of the metabolism in other diseases. This course also includes the analysis of urinary calculi; and incidentally the composition of biliary calculi might be included, as well as concretions in other parts of the body. The work on this course should be almost entirely laboratory work under personal instruction, with a few lecture room demonstrations or exercises in diagnosis by means of lantern slide exhibits.
- 2. Advanced work on the clinical examination of the blood and gastric contents, particularly with reference to the diagnosis of blood and stomach diseases.
- The study of toxicology and medico-legal chemistry generally. This
 course has heretofore been included in the regular course of clinical
 chemistry given to the second class.
- 4. Analysis of the urine for some of the special poisons or drugs, such as arsenic, lead, mercury, morphine, and strychnine.
 - Four courses forenoon or afternoon, every day, except Saturday afternoons, first half-year, 250 hours each, or every other day, 125 hours.
- 5. More advanced courses of 500 or 1000 hours each for those who may desire to work up some special subject in pathological chemistry, or for those who desire to fit themselves to become teachers in clinical or pathological chemistry. Primarily for graduates. Only those previously trained in inorganic and organic chemistry will be admitted to this course.

Bacteriology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.
HIBBERT W. HILL, M.D., Instructor in Bacteriology.
CALVIN G. PAGE, M.D., Assistant in Bacteriology.
WILLIAM H. ROBEY, Jr., M.D., Assistant in Bacteriology.
HENRY J. PERRY, M.D., Assistant in Bacteriology.
EUGENE E. EVERETT, M.D., Assistant in Bacteriology.
GEORGE L. BAKER, M.D., Assistant in Bacteriology.

LANGDON FROTHINGHAM, M.D.V., Austin Teaching Fellowin Bacteriology.

Second year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth year. — The elective course offered is mainly practical.

Opportunities for special investigation will be offered such students as can give the necessary time in the laboratory.

Text-books. — Muir and Ritchie. Abbott. Park.

Collateral Reading. - Sternberg. Heim. Migula.

SECOND YEAR.

Lectures. Professor Ernst. Daily, except Saturdays, during October and November. 40

Laboratory work. Professor Ernst, and Drs. Page, Robey, Perry, Everett, and Frothingham. Two to three hours daily during October and November.

FOURTH YEAR ELECTIVE.

Advanced Bacteriology. Professor Ernst, and Drs. Page, Rober, and Perry. Lectures and laboratory work during the second half-year. (This course is intended to encourage original work.) 172

Pathology.

WILLIAM T. COUNCILMAN, M.D., Shattuck Professor of Pathological Anatomy.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

James H. Wright, M.D., Instructor in Pathology.

George B. Magrath, M.D., Assistant in Pathology.

HENRY A. CHRISTIAN, M.D., Instructor in Pathology.

CLARENCE W. KEENE, M.D., Assistant in Neuropathology and in Pathology.

Walter R. Brinckerhoff, M.D., Assistant in Pathology.

Elmer E. Southard, M.D., Instructor in Neuropathology.

Ernest E. Tyzzer, M.D., Assistant in Pathology.

Second year.—The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions

explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. An abundance of material is provided for the course. Lectures and laboratory talks are given daily.

In the forenoons of the last two weeks of January, Professor T. Smith gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are: -

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

 Text-books. Ziegler, General and Special Pathology. Stengel, A

Text-book of Pathology. Mallory and Wright, Pathological Technique. Collateral Reading. — Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, Die tierischen Parasiten des Menschen.

SECOND YEAR.

- Lectures or conferences. Professor Councilman. Daily for fourteen weeks, October, November, December, and January. 84
- Lectures. Professor T. Smith. One hour daily, third and fourth weeks of January.
- Laboratory work. Professors Councilman and Mallory, and Drs. Wright, Magrath, Christian, and Keene. Three hours daily during the forenoons of October, November, December, and the first two weeks of January.
- Demonstrations and laboratory work. Professor T. Smith. Two hours daily, third and fourth weeks of January.
- Neuropathology. Dr. Southard. Afternoons in December. 45
- Surgical pathology. Asst. Professor Nichols. Afternoons in January. 60

Comparative Pathology.

- Theobald Smith, M.D., George Fabyan Professor of Comparative Pathology.
- Herbert R. Brown, B.S., Austin Teaching Fellow in Comparative Pathology.

Second year.—A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth year.— An elective course consisting of lectures and demonstrations on the comparative etiology of infectious diseases is given during the second half-year. In this course much time is devoted to a consideration of the general principles underlying infection and immunity, and their application to diagnosis, prevention, and therapy (vaccines, antitoxins, agglutinins, etc.). The public-health problems arising from the interrelation of human and animal diseases are also discussed.

A few graduate students qualified to carry on investigations may be accommodated at the laboratory at Forest Hills from October to June.

SECOND YEAR.

Lectures. Professor T. Smith. (H.M.S.) One hour daily, third and fourth weeks of January.

Demonstrations and laboratory work. Professor T. Smith, and Drs.

Magrath, Christian, and Keene. Two hours daily, third and fourth weeks of January.

(This course forms part of the required work in Pathology.)

FOURTH YEAR ELECTIVE.

Lectures. Professor Smith. (H.M.S.) Twice a week, second halfyear. 32

Materia Medica and Therapeutics.

Franz Pfaff, M.D., Assistant Professor of Pharmacology and Therapeutics.

James O. Jordan, Ph.G., Assistant in Materia Medica.

Maurice P. O. Vejux-Tyrode, M.D., Instructor in Pharmacology.

Second and Third years.—Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice, and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological actions of drugs, and their practical value as remedies.

Text-book. — A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR.

- Pharmacology lectures. Assistant Professor Pfaff. Twice a week, Feb. to May inclusive. 32
- Materia Medica lectures. Dr. Vejux-Tyrode. Once a week, Feb. to May inclusive.
- Voluntary laboratory work. Mr. Jordan and Dr. Vejux-Tyrode. Two hours once a week during April and May.

THIRD YEAR.

Lectures on Therapeutics. Asst. Professor Pfaff. Once a week, first half-year.

The Theory and Practice of Physic.

- REGINALD H. Fitz, M.D., Hersey Professor of the Theory and Practice of Physic.
- **ELBRIDGE** G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.
- ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.
- ELLIOTT P. Joslin, M.D., Assistant in the Theory and Practice of Physic.
- Franklin W. White, M.D., Assistant in the Theory and Practice of Physic.
- George S. C. Badger, M.D., Assistant in the Theory and Practice of Physic.
- Joseph H. Pratt, M.D., Assistant in the Theory and Practice of Physic.

Second and Third years. — Lectures. Lectures on selected topics are given at the Medical School.

Clinical Exercises. — Clinical exercises in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Ward Visits. — Students in sections will visit patients at stated intervals in the wards of the Massachusetts General Hospital.

Section Teaching.—Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Text-books. — Osler, Practice of Medicine. Tyson, Practice of Medicine. Strümpell, Text-book of Medicine.

Collateral Reading. - Loomis-Thompson, American System of Practical Medicine. Allbutt, System of Medicine. Nothnagel, Specielle Pathologie und Therapie. Eulenburg, Real-Encyclopädie der gesammten Heilkunde.

SECOND YEAR.

- Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a week, second half-year.
- Clinical lectures. Professor Fitz. (M.G.H.) Once a week, second halfyear. 16
- Clinical lectures. Dr. Cutler. (M.G.H.) Twice a week, second half-
- Exercises in sections. Drs. Stone, Joslin, White, Badger, and Pratt. Twice a week, second half-year, for each student. 32

THIRD YEAR.

- Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a week, first half-year. 32
- Clinical lectures. Professor Fitz. (M.G.H.)
 - Twice a week, first half-year.
 - Once a week, second half-year.
- 16 Clinical lectures. Dr. Cutler. (M.G.H.) Once a week, first half-

32

- 16
- Ward Visits. Dr. Cutler. (M.G.H.) During the year. - 8
- Exercises in sections. Drs. Stone, Joslin, White, Badger and Pratt. 8 First half-year.

Clinical Medicine.

- FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical Medicine.
- GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine.
- CHARLES F. WITHINGTON, M.D., Instructor in Clinical Medicine.
- HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.
- HENRY JACKSON, M.D., Instructor in Clinical Medicine.
- James M. Jackson, M.D., Assistant in Clinical Medicine.
- RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.
- FRANCIS P. DENNY, M.D., Assistant in Clinical Medicine.
- WILLIAM H. ROBEY, Jr., M.D., Assistant in Clinical Medicine.
- WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.
- EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises. The teaching for the second, third, and fourth years is graded and separate for each year, except that students of the fourth class are allowed to attend the clinical lectures given for the third class, if they wish.

Second year. - The following courses continue for four months: -

Physical diagnosis for the class in small sections. Every student attends two exercises a week.

Clinical instruction for the entire class, five times a week, in case taking, diagnostic methods, diagnosis, and treatment.

Third year. — Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Fourth year.—The class has two clinics a week at which special attention is paid to Clinical Therapeutics.

Conferences are held once a week throughout the year. A medical case is assigned to every student. He is required to work it up thoroughly and to write out in full the history, physical examination, differential diagnosis, and treatment. From the papers thus prepared certain ones are selected to be read before the teachers in the department and the students at the weekly conference. A full discussion is encouraged.

Every student is required to take at least one month's service in a medical out-patient department under the supervision of the head of the clinic.

Twice a week in the second half-year the entire class has an exercise in diagnosis. Cases are examined by the students themselves under supervision, and the class is drilled in differential diagnosis with the help of printed cases.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Simon, Clinical Diagnosis. Cabot, Physical Diagnosis.

Collateral Reading. — Allbutt, System of Medicine. Twentieth Century Practice of Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Hare, Practical Diagnosis. Butler, Diagnostics of Internal Medicine. Le Fevre, Physical Diagnosis.

SECOND YEAR.

Clinics. Professor Shattuck and Dr. Vickery (M.G.H.) and Assistant Professor Sears and Dr. H. Jackson (B.C.H.). Five times a week, second half-year.

Physical Diagnosis. Drs. Cabot and J. M. Jackson (M.G.H.), Dr. Robey (B.C.H.), and Dr. Denny (B.D.). Two exercises a week, second half-year, for each student.

THIRD YEAR.

Clinics. Professor Shattuck. (M.G.H.) Twice a week, first half-y	ear;
once a week, second half-year.	48
Assistant Professor Sears. (B.C.H.) Once a week.	32
Dr. H. Jackson. (B.C.H.) Once a week, first half-year.	16
Dr. Withington. (B.C.H.) Twice a week, second half-year.	32

FOURTH YEAR.

Clinics with special reference to therapeutics. Professor Sh	IATTUCK.
(M.G.H.) Once a week.	32
Practical Therapeutics. Assistant Professor Sears. (B.C.H.)	Once a
week.	32
Clinics. Dr. Sears. (B.C.H.) Once a week, second half-year.	16
Clinical conferences. (H.M.S.) Once a week.	32
Practical exercises in clinical diagnosis. Dr. R. C. Cabot. (M.G.H.)
Twice a week for two hours, second half-year.	64

Pediatrics.

Thomas Morgan Rotch, M.D., Professor of Pediatrics.	
JOHN H. McCollom, M.D., Assistant Professor of Contagious Disec	ases.
George A. Craigin, M.D., Clinical Instructor in Pediatrics.	
John L. Morse, M.D., Instructor in Pediatrics.	
MAYNARD LADD, M.D., Assistant in Pediatrics.	
Charles H. Dunn, M.D., Assistant in Pediatrics.	

Third Year. - Lectures on selected topics preparatory for the clinical teaching are given early in the year. Clinical lectures are given from November to April inclusive at the Children's Hospital and at North Grove Street; the students are required to take an active part in the examination and discussion of the cases. A certain number of recitations on subjects selected as best taught in this way are held in the course of the year, and a large amount of case teaching occurs in the latter part of the year. Sectional teaching at the bedside is given from October to May inclusive, and comprises a large proportion of the year's instruction. During the first half-year the class in sections receives instruction three times a week in the contagious wards of the Boston City Hospital, where each student is shown and examines cases of diphtheria, scarlet fever, and measles. Each student is taught the technique of intubation, and has an opportunity to see intubation performed. A written report of the cases seen is required. In all the clinical and sectional teaching especial attention is paid to clinical therapeutics.

Fourth Year. — In the second half-year the class, divided into sections, is given an opportunity to become practically familiar with diphtheria, searlet fever, and measles, their diagnosis, course, and treatment. This exceptional opportunity is rendered possible by the abundant material of the South or Contagious Department of the Boston City Hospital, which accommodates two hundred and fifty patients.

Text-book. — Rotch, Pediatrics.

Collateral Reading. — Keating, Cyclopaedia of the Diseases of Children. Northrup, American Edition of The Diseases of Children, by Ashby and Wright. Jacobi, Therapeutics of Infancy and Childhood. Holt, Diseases of Infancy and Childhood. Sachs, The Nervous Diseases of Children.

THIRD YEAR.

Lectures. Professor Rotch. (H.M.S.) Once a week, October 6 to December 22; twice a week, February 2 to February 28; once a week, March 7 to April 15.

Dr. Ladd. (H.M.S.) Once a week, January 3 to January 31. 5 Clinical lectures. Professor Rotch. (Ch.H.) Once a week, October 7 to February 3.

Dr. Morse. (North Grove St.) Once a week, February 10 to March 31.

Recitations and Case Teaching. Dr. Morse. Once a week, March 2 to April 13; twice a week, April 23 to May 25.

17 Section Teaching.

Assistant Professor McCollom. (S.D.B.C.H.) Three times a week, first half-year.

Dr. Morse. (Ch.H. and I.H.) 27 times, first half-year; 10 times, second half-year.

Dr. Craigin. (Ch.H.) 48 times, first half-year; 15 times, second half-year.

Dr. Ladd. (Ch.H. and I.H.) 49 times, first half-year; 20 times, second half-year.

Dr. Dunn. (Ch.H and I.H.) 41 times, first half-year; 33 times, second half-year.

Each student receives 29 hours of section teaching.

3

29

FOURTH YEAR.

Section Teaching. Assistant Professor McCollom. (S.D.B.C.H.)

Twice a week, second half-year.

Clinical Microscopy.

WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum.

Fourth year.—The course during the first half-year is elective. A continuation of the course is given during the second half-year and is optional. The instruction is entirely practical in character. It includes the examination of fluids, tumors, curettings, and organs from autopsies. Special attention is paid to the microscopic examination of the material in the fresh condition.

Text-book. - Simon, Manual of Clinical Diagnosis.

FOURTH YEAR. ELECTIVE.

Laboratory exercises. Dr. Whitney. (H.M.S.) One hour, three times a week, first half-year.

48

OPTIONAL COURSE.

Laboratory exercises. Dr. Whitney. (H.M.S.) One hour, three times a week, second half-year. 48

Surgery.

The Division of Surgery is composed of the departments of surgery, clinical surgery, and orthopedic surgery.

J. COLLINS WARREN, M.D., LL.D., Moseley Professor of Surgery.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.

MAURICE H. RICHARDSON, M.D., Professor of Clinical Surgery.

HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

HENRY H. A. BEACH, M.D., Lecturer on Surgery.

GEORGE W. GAY, M.D., Lecturer on Surgery.

JOHN W. ELLIOT, M.D., Lecturer on Surgery.

SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

GEORGE H. MONKS, M.D., Lecturer on Surgery.

FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery.

Francis B. Harrington, M.D., Lecturer on Surgery.

ROBERT W. LOVETT, M.D., Assistant in Orthopedics.

JOHN C. MUNRO, M.D., Lecturer on Surgery.

ELLIOTT G. BRACKETT, M.D., Assistant in Orthopedics.

PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery.

JOEL E. GOLDTHWAIT, M.D., Assistant in Orthopedics.

James G. Mumford, M.D., Instructor in Surgery.

John B. Blake, M.D., Instructor in Surgery.

WILLIAM A. BROOKS, Jr., M.D., Assistant in Surgery.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

Howard A. Lothrop, M.D., Instructor in Surgery.

FRANKLIN G. BALCH, M.D., Assistant in Surgery.

JOHN DANE, M.D., Assistant in Orthopedics. FRED B. LUND, M.D., Assistant in Surgery.

CHARLES A. PORTER, M.D., Instructor in Surgery.

George W. W. Brewster, M.D., Assistant in Surgery.

ERNEST A. CODMAN, M.D., Assistant in Surgery.

ROBERT B. GREENOUGH, M.D., Assistant in Surgery.

Daniel F. Jones, M.D., Assistant in Surgery.

L. R. G. CRANDON, M.D., Assistant in Surgery.

Frank L. Richardson, M.D., Austin Teaching Fellow in Surgery.

Instruction is given by systematic lectures, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third years. - A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures. illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technic; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. As early as may be in the second half of the second year, the course in surgical technic is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technic the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. During this month of service as surgical dresser the student receives instruction in anesthesia and instruction in minor genito-urinary surgery. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in orthopedic surgery is given in the first half of the year and consists of lectures at the Medical School and of clinical exercises at the Children's Hospital.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work. Fourth year, 1904-05.—The instruction consists of the following exercises each week: one clinical lecture of one hour; one clinical lecture of two hours, in the second half of the year the second hour of this clinical lecture is devoted to case-teaching; one diagnosis clinic of two hours.

The course in regional surgery given by Professor M. H. Richardson twice a week in the first half-year is introductory to his clinical exercises at the Massachusetts General Hospital in the second half-year. Each anatomical structure is considered in its surgical aspects. Especial attention is paid to the surgery of the abdominal, thoracic, and cranial cavities.

The class is divided into small sections which receive instruction three hours a week for six weeks in the surgical wards of the Massachusetts General and Boston City Hospitals. In this section teaching the students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

Any student who has completed the work of the first three years may substitute for the sectional major surgery of the fourth year one month of satisfactory work as surgical dresser at the Relief Station of the Boston City Hospital.

A required course in orthopedic surgery is given in the first half of the year and consists of lectures at the Medical School and of clinical exercises at the Children's Hospital. There is an elective course given in the second half of the year consisting entirely of clinical work.

An elective course in operative surgery is given in which all the classic, as well as all the important modern, operations are illustrated upon the cadaver. Members of the third and fourth classes are permitted to attend the demonstrations. Students who elect the course repeat the operations on the cadaver under the supervision of the instructors. In connection with this course there are eight exercises on surgical landmarks.

In genito-urinary surgery an optional course is given consisting of lectures and clinical demonstrations at the Boston City Hospital.

Surgical operations of every variety are performed once a week both at the Massachusetts General and at the Boston City Hospitals.

Books recommended.—International Text-book of Surgery. Warren, Surgical Pathology. American Text-book of Surgery (edition of 1903). Park's Surgery by American Authors. Cheever, Lectures on Surgery. Dennis, System of Surgery. König, Lehrbuch der Speciellen Chirurgie. Bryant, Operative Surgery. Jacobson (and Steward), Operations of Surgery. Brewer, Text-book of Surgery. DaCosta, Modern Surgery. Albert, Surgical Diagnosis (translated by Frank). Scudder, Treatment

of Fractures. Stimson, Fractures and Dislocations. Marchand, Wundheilung. Gould, Elements of Surgical Diagnosis. Wharton, Minor Surgery and Bandaging. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopedische Chirurgie. Keyes, Surgical Diseases of the Genito-Urinary Organs. Morton, Genito-Urinary Diseases and Syphilis. Mumford, Clinical Talks on Minor Surgery. Burrell and Blake, Case Teaching in Surgery.

SECOND YEAR.

- Laboratory course in Surgical Pathology. Assistant Professor Nichols.

 (H.M.S.) Twenty three-hour exercises during January. (See Pathology.)
- Clinical lectures in connection with the above course. Assistant Professor Nichols. (B.C.H.) Twelve exercises during January. 12
- Laboratory course in Surgical Technic. Dr. Lothrop. Six lectures to the entire class. 6
 - Twelve two-hour exercises for each student during second half of second year. 24
- Systematic lectures, demonstrations, and recitations. Professors Warren and Burrell. (H.M.S.) Four times a week. 128
- Clinical demonstrations in connection with the above lectures. Professor Richardson (M.G.H.), and Drs. J. B. Blake and Lothrop (B.C.H.).

 Four times a week.

THIRD YEAR.

- Systematic lectures, demonstrations, and recitations. Professors Warren and Burrell. (II.M.S.) Three times a week, first half-year. 48
- Clinical demonstrations in connection with above lectures. Professors Warren (M.G.II.) and Burrell (B.C.H.). Twice a week, first half-year.
- Clinical lectures. Professor M. H. Richardson. (M.G.H.) Once a week, second half-year.
 - Professor Burrell. (B.C.H.) Once a week, second half-year. 16
 Dr. Gay and Professor Burrell. (B.C.H.) Once a week, second
 half-year. 16
- Clinical exercises in surgical wards. Drs. Mumford, Blake, Brooks, Faulkner, Lothrop, Balch, Lund, Porter, Cobb, Cotton, Greenough, Hubbard, and Crandon. Twice a week for eight weeks, first half-year.
- Lectures and demonstrations. Orthopedic surgery. Professor Bradford.

 (H.M.S. and Ch. H.) Once a week, first half-year. 16

Once

8

6

16

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FOURTH YEAR.

Professor M. H. Richardson. (M.G.H.) Once a week, second half-

Professor Burrell. (B.C.H.) Once a week, for two hours, first half-

Professor M. H. RICHARDSON. (M.G.H.) Once a week, for two hours,

Diagnosis in Clinical Surgery. Professor Warren and Dr. C. A. Porter. (M.G.H.) Once a week, for two hours, first half-year.

Surgical clinic. Professor M. H. RICHARDSON and Dr. C. A. PORTER.

Clinical lectures and case-teaching. Professor Burrell and Drs. Monks

Lectures. Genito-Urinary Surgery. Dr. Thorndike. (II.M.S.)

Section teaching at the Hospitals. One hour a day for six days.

Dr. Mumford. (M.G.H.) Once a week, first half-year.

(M.G.H.) Once a week, second half-year.

a week for eight exercises in October and November.

Clinical lectures and demonstrations.

year.

second half-year.

and Blake. (B.C.H.) Once a week, for two nours, second naij-
year. 32
Lecture demonstrations in Regional Surgery. Professor M. H. RICHARD-
son. (H.M.S.) Twice a week, first half-year. 32
Clinical exercises in surgical wards. Drs. Cushing, Mumford, Blake,
Brooks, Faulkner, Lothrop, Balch, Lund, Porter, Greenough,
and Crandon. Three times a week for six weeks, second half-
year. 18
Lectures in Orthopedic Surgery. Professor Bradford. (H.M.S. and
Ch.H.) Once a week, first half-year.
Clinical exercises. Professor Bradford, and Drs. Lovett, Brackett,
GOLDTHWAIT, and DANE. (Ch.H.) In sections, twice a week, second
half-year. Three exercises for each student. 3
Jan 1 and 1
Elective.
Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.)
Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.) October, November, December. 24
Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.) October, November, December. 24 Repetition of the operations by the students under the supervision of the
Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.) October, November, December. 24 Repetition of the operations by the students under the supervision of the instructors. (H.M.S.) Fifteen hours, second half-year. 15
Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.) October, November, December. 24 Repetition of the operations by the students under the supervision of the instructors. (H.M.S.) Fifteen hours, second half-year. 15 Clinical exercises in Orthopedic Surgery. Professor Bradford. (Ch.H.)
Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.) October, November, December. 24 Repetition of the operations by the students under the supervision of the instructors. (H.M.S.) Fifteen hours, second half-year. 15 Clinical exercises in Orthopedic Surgery. Professor Bradford. (Ch.H.) Twice a week, second half-year. 32
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Lecture demonstrations in Operative Surgery. Dr. Monks. (H.M.S.) October, November, December. 24 Repetition of the operations by the students under the supervision of the instructors. (H.M.S.) Fifteen hours, second half-year. 15 Clinical exercises in Orthopedic Surgery. Professor Bradford. (Ch.H.) Twice a week, second half-year. 32 Also in sections four times a week, second half-year. (Every student measures for apparatus twice, and assists at operations two or
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OPTIONAL COURSE.

Clinical lectures in Genito-Urinary Surgery. Dr. Thorndike. (B.C.H.)

Once a week, first half-year.

Dr. Watson. (B.C.H.) Once a week, second half-year.

16

Obstetrics and Gynaecology.

- WILLIAM L. RICHARDSON, M.D., Professor of Obstetrics.
- Francis H. Davenport, M.D., Assistant Professor of Gynaecology.
- Charles M. Green, M.D., Associate Professor of Obstetrics and Clinical Gynaecology.
- MALCOLM STORER, M.D., Assistant in Gynaecology.
- Franklin S. Newell, M.D., Instructor in Obstetrics and Assistant in Gunaecology.
- Ernest B. Young, M.D., Assistant in Gynaecology.
- HOWARD T. SWAIN, M.D., Assistant in Obstetrics.
- LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.
- James R. Torbert, M.D., Assistant in Obstetrics.

OBSTETRICS.

Third year.—Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, to receive clinical instruction on at least one of them, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth year.—An elective course in operative obstetrics, with practical illustrations on the cadaver and manikin, is given during the first half-year.

Text-book. — J. W. Williams, A Text-book of Obstetrics.

Colluteral Reading. — Reynolds and Newell, Practical Midwifery. Hirst, A Text-book of Obstetrics. Lusk, The Science and Art of Midwifery. Dorland, Modern Obstetrics.

THIRD YEAR.

- Lectures on the Theory and Practice of Obstetrics. Professor W. L. RICHARDSON. (H.M.S.) Twice a week. 64
 Recitations. Dr. Newell. (H.M.S.) Once a week. 32
- Conferences. Professor W. L. Richardson, Professor Green, and Drs.

 Newell, Swain, Friedman, and Torbert. (H.M.S.) Once a

 week.

 32

Practical instruction in Clinical Obstetrics. Drs. Newell, Swain, Friedman, and Torbert. Throughout the year, i.e. every student must receive instruction on one of the six cases of labor which he attends, and may call for instruction in the other five cases if he desires.

ELECTIVE.

Operative Obstetrics. Professor Green. (H.M.S.) Twelve practical exercises, November, December, and January. 12
Repetition of the same exercises by the students under the supervision of Drs. Newell, Swain, Friedman, and Torbert. Three two-hour exercises for each student. 6

GYNAECOLOGY.

Third year.—Lectures, recitations, and clinical instruction are given at the Boston City Hospital and the Boston Dispensary. The large outpatient departments of these institutions are utilized to accustom the student to the methods of examination, to the perfecting of diagnosis, and to the simple forms of treatment.

Fourth year.—An elective course is offered. The instruction is more advanced. Clinical and operative instruction is given in the wards of the Boston City Hospital. Cases are assigned to the students for examination, are reported in full at conferences held once a week, and are discussed by members of the class and by the instructors.

Text-book. — Garrigues, Diseases of Women.

Collateral Reading.—Skene, Diseases of Women. Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Dudley, Diseases of Women. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women.

THIRD YEAR.

Lectures or recitations. Assistant Professor Davenport. (H.M.S).

Twice a week, second half-year.

Clinical exercises. Dr. Storer (B.D.), Drs. Newell and Young (B.C.H.). In sections, six times a week till January, then three times a week. Every student receives six hours of instruction.

FOURTH YEAR ELECTIVE.

Clinical and operative exercises. Professor Green. (B.C.H.) Twice a week throughout the year.

64
Clinical conferences. Professor Green. (H.M.S.) Once a week, second

Clinical conferences. Professor Green. (H.M.S.) Once a week, second half-year.

Dermatology and Syphilis.

John T. Bowen, M.D., Assistant Professor of Dermatology.
Abner Post, M.D., Instructor in Syphilis.
Charles J. White, M.D., Instructor in Dermatology.
C. Morton Smith, M.D., Assistant in Syphilis.

DERMATOLOGY.

Third year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Fourth year.— An elective course is given; the instruction is clinical. The out-patient department at the Massachusetts General Hospital and the skin ward furnish ample means of illustration. In connection with the work a special laboratory course is given on the pathological histology and parasitism of skin diseases, and on the methods of research employed,

Collateral Reading.—Stelwagon. Duhring. Hyde. Robinson. Crocker. Kaposi. v. Ziemssen. Besnier. Van Harlingen. Jackson. Taylor.

THIRD YEAR.

- Lectures, demonstrations, and recitations on diseases of the skin. Assistant Professor Bowen. (H.M.S.) Once a week during October and November.
- Clinical Dermatology. Assistant Professor Bowen. (M.G.H.) Once a week.
- Clinical exercises. Assistant Professor Bowen. (M.G.H.) In sections, twice a week, February and March.

FOURTH YEAR ELECTIVE.

Clinical Dermatology. Dr. White. (M.G.H.) Twice a week. 64
Laboratory instruction in Pathological Histology and Parasitism. Dr.
White. (An optional course open to those who elect Clinical Dermatology.) Eight exercises of two hours each, during second half-year. 16

SYPHILIS.

Third and Fourth years. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR.

Lectures. Dr. Post. (H.M.S.) Once a week, December and January. 8 Clinical lectures. Drs. Post and Smith. (B.D.) Once a week, April and May. 8 Clinical exercises. Drs. Post and Smith. (B.D.) In sections, twice a week, second half-year. Each student attends six two-hour exercises.

FOURTH YEAR.

Didactic and clinical lectures. Dr. Post. (B.D.) Once a week, first half-year.

Clinical exercises. Drs. Post and Smith. (B.D.) In sections, three times a week, first half-year. Each student attends six two-hour exercises.

Neurology.

James J. Putnam, M.D., Professor of Diseases of the Nervous System.
George L. Walton, M.D., Clinical Instructor in Diseases of the Nervous System.

Philip Coombs Knapp, M.D., Clinical Instructor in Diseases of the Nervous System.

EDWARD W. TAYLOR, M.D., Assistant in Neurology.

GEORGE A. WATERMAN, M.D., Assistant in Neurology.

Second year. — Instruction is given during December on the pathology of the nervous system. The course is illustrated by lantern projections of histological preparations and by work in the laboratory.

Third year. — During the first half-year one lecture a week, and during the second half-year two lectures a week, are given at the Massachusetts General Hospital. The lectures are illustrated by cases from the large and excellent out-patient service, and from the medical and surgical wards of the hospital. In addition, the students are given an opportunity to study cases outside the lecture hours, and to report on them.

Fourth year. — Elective course. Every student receives two to three hours of clinical instruction a week, and has access to the clinical material furnished by the Massachusetts General and the Boston City Hospitals.

Text-book.—Putnam and Waterman, Studies in Neurological Diagnosis.
Collateral Reading.—Gowers, Diseases of the Nervous System. Dana,
Text-book of Nervous Diseases. Herter, Manual of Diagnosis of Nervous
Diseases. Sachs, Nervous Diseases of Children. Mills, The Nervous
System and Its Diseases. Oppenheim, Diseases of the Nervous System
(English translation). Berkeley, Mental Diseases. Church and Petersen, Nervous and Mental Diseases. Jacob, Atlas of the Nervous System.

SECOND YEAR.

Pathology of the Nervous System. Dr. Southard. (H.M.S.) Fifteen exercises during December. (See Pathology.) 45

THIRD YEAR.

Clinical exercises. Professor Putnam. (M.G.H.) Once a week, first half-year; twice a week, second half-year.

48

FOURTH YEAR ELECTIVE.

- Clinical exercises. Professor Putnam. (M.G.H.) Once a week, first half-year.

 16
 Dr. Walton. (M.G.H.) Twice a week, first half-year. 32
 - Dr. Knapp. (B.C.H.) Twice a week, second half-year. 32

Psychiatry.

- Edward Cowles, M.D., LL.D., Clinical Instructor in Mental Diseases. William Noyes, M.D., Clinical Instructor in Mental Diseases.
- Third year.—Systematic lectures are given at the Medical School during the second half-year.
- Fourth year. Optional course. Clinical instruction is given twice a week during February, March, and April at the new McLean Hospital at Waverley, and at the Boston Insane Hospital (Pierce and Austin Farms).
- Text-books. Clouston. Folsom, Monograph in Pepper's System of Medicine. Regis. Chapin.
- Collateral Reading.—J. Bevan Lewis. Spitzka. Tuke, Dictionary of Psychiatric Medicine. Kraepelin, Psychiatric. Hyslop, Mental Physiology. James, Psychology.

THIRD YEAR.

Lectures. Dr. Cowles. (H.M.S.) Once a week, second half-year. 16

FOURTH YEAR. OPTIONAL COURSE.

- Clinical instruction. Dr. Cowles. (McL.H.) Once a week during February, March, and April.
 - Dr. Noyes. (B.I.H.) Once a week during February, March, and April.

Ophthalmology.

- Myles Standish, M.D., Assistant Professor of Ophthalmology.
- EDWIN E. JACK, M.D., Assistant in Ophthalmology.
- Alexander Quackenboss, M.D., Assistant in Ophthalmology.
- HENRY H. HASKELL, M.D., Assistant in Ophthalmology.
- Edmund W. Clap, M.D., Assistant in Ophthalmology.
- FRED M. SPALDING, M.D., Assistant in Ophthalmology.

Third and Fourth years.—Instruction consists of lectures and of clinical demonstrations at the Massachusetts Charitable Eye and Ear Infirmary.

In the elective course every student receives four hours of clinical instruction a week. This includes instruction in the use of the ophthalmoscope, the examination of patients for errors of refraction, and clinical work in the wards and out-patient department of the Massachusetts Charitable Eve and Ear Infirmary.

Text-books. - DeSchweinitz. Fuchs. Swanzy. Jackson.

Collateral Reading. — Loring, On the Ophthalmoscope. Landolt, Refraction and Accommodation. Noyes. Norris and Oliver, System of Diseases of the Eye. Haab, Atlas of the External Diseases of the Eye.

THIRD AND FOURTH YEARS.

Lectures. Assistant Professor Standish. (H.M.S.) Three times a week, in October and the first week of November.

Clinical exercises. Drs. Jack, Quackenboss, Clap, Spalding, and Haskell. (E. and E.I.) In sections, ten hours a week, first half-year. Every student receives fourteen hours of instruction. 14

ELECTIVE.

Clinical exercises. Assistant Professor Standish. (E. and E.I.) Two two-hour exercises a week, second half-year. 64

Otology.

CLARENCE J. BLAKE, M.D., Professor of Otology.
EUGENE A. CROCKETT, M.D., Assistant in Otology.
PHILIP HAMMOND, M.D., Assistant in Otology.
WALTER A. LECOMPTE, M.D., Assistant in Otology.
ERNEST DEW. WALES, M.D., Assistant in Otology.

Third and Fourth years.— Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - Buck. Bacon. Brühl and Politzer.

Collateral Reading. — Politzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Schwartze, Handbuch der Ohrenheilkunde.

THIRD YEAR.

Lectures. Professor Blake. (H.M.S.) Once a week, second halfyear.

Clinical exercises. (E. and E.I.) In sections, two hours, three times a week, second half-year. Every student attends four or five exercises.

8-10

FOURTH YEAR.

- Lectures. Professor Blake. (H.M.S.) Twice a week during October, November, and December. 24
- Clinical exercises. Drs. Crockett and Hammond. (E. and E. I.) In sections, two hours, three times a week, first half-year. Every student attends four or five exercises. 8-10
- Anatomy of the ear. Dr. Hammond. (H.M.S.) Two recitations a week during October. One exercise for each student.

ELECTIVE.

Clinical exercises. Professor Blake, and Drs. Crockett and Hammond. (E. and E. I.) Three two-hour exercises a week, second half-year. 96

Laryngology and Rhinology.

Thomas A. Deblois, M.D., Clinical Instructor in Laryngology.

John W. Farlow, M.D., Clinical Instructor in Laryngology.

Algernon Coolidge, Jr., M.D., Clinical Instructor in Laryngology.

Frederic C. Cobb, M.D., Assistant in Laryngology.

Rockwell A. Coffin, M.D., Assistant in Laryngology.

Harris P. Mosher, M.D., Assistant in Laryngology.

Third and Fourth years.—Instruction in this department consists of lectures and demonstrations, and of training in the use of instruments. The entire class has one lecture a week during a half-year. For the practical work at the Massachusetts General and Boston City Hospitals, and the Boston Dispensary, the class is divided into small sections.

THIRD YEAR.

Lectures. Dr. Coolidge. (H.M.S.) Once a week, second half-year. 16 Clinical exercises. Drs. Farlow (B.C.H.), Cobb (B.D.), and Coffin (B.C.H.). In sections, second half-year. Twelve exercises for each student.

FOURTH YEAR.

Lectures. Dr. DeBlois. (H.M.S.) Once a week, first half-year. 16 Clinical exercises. Drs. DeBlois (B.C.H.), Coolidge (M.G.H.), and Mosher (M.G.H.). In sections, first half-year. Twelve exercises for each student. 12

Legal Medicine.

Third and Fourth years. — Legal Medicine will no longer be taught as a separate study; but the several departments will give instruction in the medico-legal aspects of their respective subjects.

Text-book. — Taylor, Manual of Medical Jurisprudence.

Collateral Reading. - Witthaus and Becker.

FOURTH YEAR.

EZRA R. THAYER, LL.B., will deliver a voluntary course of not more than six lectures on the relation of the medical profession to the law and the courts.

Hygiene.

CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene. DAVID H. WALKER, M.D., Assistant in Hygiene.

Second and Fourth years. — The instruction consists of lectures and demonstrations.

The elective laboratory course is open to specially qualified students who may be desirous of undertaking special research, or of acquiring a practical knowledge of the analysis of foods, water, air, soils, etc.

Text-book. — Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Abbott, Hygiene of Transmissible Diseases.

SECOND AND FOURTH YEARS.

Lectures and demonstrations. Assistant Professor Harrington. (H.M.S.)

Three times a week, second half-year.

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ELECTIVE.

Laboratory course for specially qualified students. Assistant Professor Harrington and Dr. Walker. (H.M.S.) Three hours, three times a week, second half-year.

Municipal Sanitation.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

FOURTH YEAR. OPTIONAL COURSE.

Lectures. Dr. Durgin. (H.M.S.) Twice a week, February and March.

EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second term of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The examination in certain studies of the first and fourth years is held at mid-year only, and is for those who are members of the School at the time, and for those entitled to apply for the degree, provided they have failed previously in those subjects. The June examination is only for those who are members of the School at the time, and for those entitled to apply for the degree. The September examination is only for those who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the fourth year are omitted during the week of the mid-year examinations.

The amount of time credited to each examination is as follows:—

First year. — Anatomy * (3 hrs.), Histology and Embryology * (3 hrs.), Physiology (3 hrs.), Physiological and Pathological Chemistry (3 hrs.).

Second year. — Bacteriology * (1 hr.), Pathology * (2 hrs. written, 1 hr. practical), Hygiene (1 hr.).

Third year. — Materia Medica and Therapeutics* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical), Clinical Surgery (1 hr. written, 1 hr. practical), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth year. — Clinical Medicine (3 hrs.), Clinical Surgery (3 hrs.), Orthopedics* (1 hr.), Syphilis* (1 hr.), Ophthalmology* † (1 hr.), Otology* (1 hr.), Laryngology* (1 hr.), Hygiene (1 hr.).

Electives.— Anatomy (2 hrs.), Advanced Histology (2 hrs.), Histology of the Nervous System (2 hrs.), Embryology (2 hrs.), Physiology (2 hrs.), Physiological Chemistry (2 hrs.), Clinical Chemistry* (1 hr.), Bacteriology (2 hrs.), Comparative Etiology of Infectious Diseases (1 hr.), Clinical Microscopy* (1 hr.), Operative Surgery (1 hr.), Orthopedics (2 hrs.), Operative Obstetrics* (1 hr.), Gynaecology (2 hrs.), Dermatology (2 hrs.), Neurology (2 hrs.), Ophthalmology (practical, 1 hr., written, 1 hr.), Otology (2 hrs.), Hygiene (2 hrs.).

^{*} The examinations in these subjects are held at the end of the first half-year.

[†] In addition to the written examination in Ophthalmology, there will be a practical examination which will count as forty per cent. of the total.

In addition to the above examinations every student is required: -

To dissect the three parts of the body to the satisfaction of the demonstrator:

To present a satisfactory report of the analysis of a specimen of urine, and of the clinical examination of a specimen of blood;

To receive practical instruction in anesthesia:

To work in medical out-patient departments during a period not exceeding four weeks, and to make a full written report on one or more medical cases:

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technic in the second half of the second year;

To take charge of and report on six cases in Obstetrics, and to receive instruction on at least one of them;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice;

To report a clinical case in each of the electives, Orthopedic Surgery and Ophthalmology, if elected.

In the fourth year, three hours of examinations in electives are obligatory. The choice of electives must be handed to the Secretary, in writing, on blanks furnished at the Dean's office, on or before 1 p.m. of the first Saturday of the term.

The general elective courses are open to all members of the fourth class who elect them with the intention of taking the examination.

The examinations in the required courses in Orthopedic Surgery, Ophthalmology and Otology cannot be taken by those who choose electives in these subjects. Instead, there is a two-hour examination in the elective, of which one hour is considered equivalent to the examination in the required course, and the other counts as a one-hour elective.

The examination in elective Ophthalmology will be clinical and written.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES.

DEGREE OF DOCTOR OF MEDICINE.

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all required examinations, and fulfil satisfactorily the special requirements enumerated on page 51.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine *cum laude* will be given to candidates who have obtained an average of eighty per cent., or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before May 1 of the year in which they intend to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of June.

A graduate of another medical school of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned; but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

DEGREE OF MASTER OF ARTS.

The degree of Master of Arts is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School on or before the thirtieth day of April. It is advisable to apply to the Board early in the year.

FEES AND EXPENSES.

All fees and deposits must be paid within two weeks of the beginning of the academic year; except that payment of two-fifths of the tuition fee may be deferred until January 31st, and the graduation fee may be paid not later than one day before Commencement. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

The fees are: — For matriculation, five dollars; for instruction, for the first three years, two hundred dollars for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars; for the full year, to all students entitled to be classified as fourth-year students and who have been regular members of the School for three full years, one hundred dollars (if in two payments, at the first, sixty dollars; at the second, forty dollars); for graduation, thirty dollars.*

During the first two years there are the following additional expenses: two dollars for each of the three parts required for dissection; two dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar†six dollars to cover Anatomy charges, two dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year.

A deposit of two dollars with the Dean will entitle a student to the use of a locker in the School building.

A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

In the fourth year a charge of three dollars is made for material used in the course in Operative Surgery.

Every student is required to file a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty

^{*} Students entering the School after the academic year 1902–03 shall pay a fee of \$200 for the fourth year and be exempt from a graduation fee.

[†] The Bursar's office is in Dane Hall, Harvard Square, Cambridge. Hours 9-1.

or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year, for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

No degree will be conferred till all dues to the School are discharged.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places, at various prices, can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

Infirmary Fee.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

CLINICAL ADVANTAGES.

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various Clinical Subjects those advantages which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital. — During the past year, more than five thousand patients were treated in the wards, and over thirty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, and Ophthalmology. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital. — During the past year, about nine thousand cases were treated in its wards, and twenty-two thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than six hundred patients were confined during the last year in the Hospital. In the out-patient department over sixteen hundred cases were attended by the hospital Externes, who are appointed from the third and fourth year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — More than forty thousand patients were treated at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital. — The wards of the Hospital are devoted entirely to children under two years of age. About three thousand children of all ages are treated annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than seven hundred cases were treated in the wards and about seventy-six hundred in the outpatient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The Massachusetts Charitable Eye and Ear Infirmary. — Over thirty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is

believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.— This Hospital is designed particularly for the treatment of chronic diseases. It has two hundred and fifty beds, with an average daily number of patients of about two hundred and thirty. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent. of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

Students are also permitted to visit the Free Hospital for Women and the Carney Hospital on application to the physicians on duty.

There are more than sixty appointments annually for Internes in the various hospitals, and nearly as many more for Assistants in the outpatient departments. Appointments for the Massachusetts General and Boston City Hospitals are for terms of one to two years (according to the service chosen); for the Boston Lying-in Hospital for six months; and for the Free Hospital for Women for nine months.

WARREN ANATOMICAL MUSEUM.

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor Emeritus from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curator is Dr. William Firse Whitney.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES.

Medical School students who are engaged in research work have access to the special libraries of the various departments on application to the persons in charge.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library, which contains a large collection of medical books, is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library has nearly 35,000 volumes, about half of which are periodicals, and 30,000 pamphlets. Nearly 500 current journals and transactions are on file. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily, except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August. It has always been free to medical students.

FELLOWSHIPS AND SCHOLARSHIPS.

Fellowships.

Bullard Fellowships. In 1891, William Story Bullard, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established with a yearly income of two hundred and twenty-five dollars each:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.
THE JOHN WARE MEMORIAL FELLOWSHIP.
THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before October 1.

Austin Fellowships. In 1900, four teaching fellowships, of five hundred dollars each, were established from the income of the Austin Fund.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

SCHOLARSHIPS.

The Cheever Scholarship is awarded to a student of the first year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

Barringer Scholarships. Two, known as the Edward M. Barringer Scholarship No. 1, and the Edward M. Barringer Scholarship No. 2, and having a yearly income of three hundred dollars and two hundred dollars respectively, from a bequest of Edward M. Barringer, will be awarded to deserving students, preferably those of the fourth class.

David Williams Cheever Scholarship, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ISAAC SWEETSER SCHOLARSHIP was founded in 1892 by Mrs. Anne M. Sweetser. The income of two hundred and fifty dollars is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

Orlando W. Doe Scholarship. The bequest of Orlando Witherspoon Doe (a.b. 1865, m.d. 1869) was five thousand dollars. One half of the income derived therefrom, amounting to one hundred dollars, is to be given annually as a scholarship to a deserving student in the Medical department."

CHARLES PRATT STRONG SCHOLARSHIP, with an income of one hundred dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

The Lewis and Harriet Hayden Scholarship for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income is two hundred dollars.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to such needy and deserving students of the Medical School as the Medical Faculty shall annually recommend.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

The John Thomson Taylor Scholarship, with an income of two hundred dollars, was founded in 1899 by Mrs. Frederic D. Philip in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

Lucius F. Billings Scholarship, with an income of two hundred dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings.

The Joseph Pearson Oliver Scholarship, with an income of three hundred and twenty-five dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. (Harvard, 1871), to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Medical Faculty may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is payable every other year to one or more meritorious students needing assistance. The next payment will be made in 1906.

All applications for scholarships or pecuniary aid, except for the Cheever and Hayden Scholarships, must be handed to the Dean on or before June 1.

Applications for the Cheever and Hayden Scholarships must be handed to the Dean on or before *November 30*. These scholarships are open only to students who are members of the school at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Dean.

PRIZES.

Boylston Medical Prizes.—These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1904 no prize was awarded.

For 1905 two prizes are offered:—

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The* results of Original Investigations in Pathology, Bacteriology, Therapentics, or Pharmacology. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before January 1, 1905.

For 1906 two prizes are offered: —

- 1. A prize of seventy-five dollars for the best dissertation on *The* results of Original Work in Anatomy, Physiology, or Physiological Chemistry. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology.* The subject to be chosen by the writer.

PRIZES. 61

Dissertations on these subjects must be sent to the same address as above on or before January 1, 1906.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

- 1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
- 2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: William F. Whitney, M.D., President; Harold C. Ernst, M.D., Secretary; Franz Pfaff, M.D., Theobald Smith, M.D., William T. Porter, M.D., Franklin Dexter, M.D., Edward H. Nichols, M.D.

The address of the Secretary of the Boylston Medical Committee is Harold C. Ernst, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School. 688 Boylston Street, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Toppan and Sumner Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged, for graduates of recognized medical schools, an improved plan of instruction, embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions:—

Massachusetts General Hospital, Infants' Hospital,
Boston City Hospital, Children's Hospital,

Boston Dispensary, McLean Hospital (for the Insane),

Massachusetts Eye and Ear Infirmary, Carney Hospital.

Boston Lying-in Hospital,

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

Instruction in the graduate courses is, with but few exceptions, entirely distinct from that of the undergraduate department of the School; but students of the former are admitted also to all the regular lectures (not clinical) of the latter, without extra charge, during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June. A certificate of attendance will be furnished, if desired.

FEES.

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address Dr. William L. Richardson, *Dean*, Harvard Medical School, 688 Boylston Street, Boston, Mass.

SUMMER COURSES OF INSTRUCTION.

During the summer of 1904, courses in many branches of practical and scientific medicine will be given by teachers in the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories of the School by the instructors in charge. These courses are open only to graduate and undergraduate students of medical schools recognized by the Faculty of Medicine, and to such others as the Dean of the Faculty approves.

A list of the Summer Courses will be announced early in the Spring. For further information address Dr. William L. Richardson, Dean, Harvard Medical School, 688 Boylston Street, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1904-05.

%%%% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	80.000.000 80.000.000	Special. Special. Special. Special. 250. 260. 270. 280. 280. 280. 280.
Nov., Dec. Jam., Feb. Mar., June Oct., Nov. Jam., Feb. Jam., Feb. Mar., May Dec., Jam.	Apr. Oct., Nov. Nov.—Jam. Nar.—Jam. Nov.—Feb. Nov.—Feb. Mar., May	Nov.—June Oct.—June Oct.—June Oct.—June Oct.—June Feb.—May Feb.—May Oct.—Apr. Oct.—Apr. Oct.—June Oct.—Jan. Oct.—Jan. Oct. I—Jan. Oct. I—Jan. Oct. I—Jan. Oct. I—Jan.
Mass. General Bospital Boston City Hospital Mass. General Hospital Mass. General Hospital G. G	Mass. General Hospital """""""""""""""""""""""""""""""""""	Med. Sell. & Boston City H. Med. Sell. & Hospital Labs. Boston City Hospital Mass. General Hospital Children's Hospital Carney Hospital Carney Hospital Carney Hospital Mass. General Hospital Mass. General Hospital Boston City Hospital Mass. General Hospital Boston City Hospital Mass. General Hospital
Dr. Locke Dr. A. K. Stone Dr. A. K. Stone Dr. A. K. Stone Dr. A. K. Stone Dr. Pratt Dr. Itaty Dr. Howes Dr. Josin Dr. Josin Dr. Josin Dr. Locke	DUDUDUD	Locke, Kobey, and Joslin) Prof. Shattack Prof. Shattack Prof. Saury Rod Burrell Staffs of Hospitals Dr. Black Dr. Brown Dr. Brown Dr. Brown Dr. Brown Dr. Brown Dr. Coton Dr. Coton Dr. Cotton Dr. Cotton Dr. Cerandon Dr. Cerandon Dr. Cerandon Dr. Cerandon Dr. Cerandon Dr. Creandon Dr. Creandon Dr. Creandon Dr. Greenough Dr. Hubbard Dr. Hubbard Dr. Jones
35. Clinical Medicine 39. Discusso of the Lungs 39. Discusso of the Chest 41. Discusso of the Chest 42. Discusso of the Myocardian 42. Discusso 43. Pigestive Discusso 44. Digestive Discusso 51, 552. Constitutional Discusso 51, 552. Constitutional Discusso 51, 552. Constitutional Discusso 51, 552. Constitutional Discusso 51, 553. Constitutional Discussos 51, 554. Constitutional Discussos 51, 554. Constitutional Discussos	Blood Pagnination Blood Pagnination Blood Pagnination Sputtum Analysis Sputtum Analysis Blood, Urine, and Sputa 162, 163. Cytodiagnosis Ward Work Ward Work Medical Out-Patient Work	Therapeuties Research and special work in Surg. Research and special course Major Surgery, 2 courses Minor Surgery, 2 courses Surgical Diagnostic Radiology Surgical Diagnostic Radiology General Surgery of Children Clin. and Oper. Surgery, 2 courses Fractures Fractures Surgery dethe Prostate Fractures Surgery Albology of the Prostate Clin. and Oper. Minor Surgery Minor Surgery Minor Surgery

When time and fee are "special," arrangements must be made with the instructor. ‡ Women admitted conditionally. Time includes months named. Women admitted,

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TIME.*	Feb., Mar. Feb., Mar. Feb., Mar. Feb., Mar. Get.—May Oct.—May Oct.—May Oct.—May Oct.—Dec. Jan., Feb. Jan., Feb. Jan., Feb. Got.—May Oct.—May Oct.—M
PLACE.	Boston City Hospital Mass. General Hospital Carney Hospital Boston City Hospital Boston Dispensary Lab. Mass. Gen. Hospital Carney Hosp., House of Children's, Mass. Gen., & Carney Hosp., House of Carney Hosp., House of Carney Hosp., House of Carney Hosp., House of Medical School Medical School Lab. Mass. Gen. Gen. Boston Lying-in Hospital Boston City Hospital Medical School City Hospital Boston City Hospital Boston City Hospital Medical School Medical School City Hospital
INSTRUCTOR.	Dr. Lund Dr. Lund Dr. Lund Dr. Mumford Dr. Mumford Dr. C. A. Porter Dr. Paul Thorndike Dr. Watson Dr. Watson Dr. Wright Dr. Wewell Dr. Swain Prof. C. M. Green Dr. Swain
SUBJECT.	83. Genito-Urinary Surgery 84. Minor Surgery 85. Minor Surgery 86. General Surgery 87. After-Present 87. After-Present 88. Surgery 88. Genito-Urinary Surgery, 2 courses 89. Genito-Urinary Surgery, 2 courses 89. Genito-Urinary Surgery, 2 courses 80. Genito-Urinary Surgery, 2 courses 80. Genito-Urinary Surgery and 80. Genito-Urinary Surgery 80. Tubercular Discusses, 2 courses 80. General Orthopodic Surgery 80. Tubercular Discusses 80. General Orthopodic Surgery 80. Tubercular Discusses 80. Deformities 80. Clinical Obstetric Service 80. Operative Obstetrics 80. Operative Obstetrics 80. Deporative Obstetrics 80. Deformities 80. Deformitie

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Jan. 3—Feb. 9, Feb. 14—Mar. 23 Apr. 4—Mar. 23 Apr. 4—June Oct.—June Oct.—June Cot.—June Cot.—June Cot.—June Cot.—June Special Special Special Special Special Special Cot. Nov. Cot., Nov. Special Doc. 26—Jan. Special
Infants' Hospital " " " Mass. General Hospital Boston Dispensary Mass. General Hospital Boston City Hospital Mass. General Hospital Mass. General Hospital Mass. General Hospital For and Ear Infanary Medical School Eye and Ear Infanary " " " " Boston City Hospital Eye and Ear Infanary " " " " Boston City Hospital Mass. General Hospital Eye and Ear Infanary " " " " Medical School By and Ear Infanary " " " " Boston City Hospital Mass. General Hospital
Dr. Ladd Dr. Morse Prof. Bowen Prof. Bowen Prof. Bowen and Dr. White Prof. Putnum, Drs. Walton, Taylor, and Waternam Dr. Knapp Dr. Taylor Dr. Salor Dr. Salor Dr. Agen Dr. Gowles Dr. Hammond Dr. Quackenboss Dr. Spadding Dr. Olackenboss Dr. Spadding Dr. Olackenbos Dr. Accobb Dr. Accobb Dr. Accobb Dr. Accobb Dr. A. Coolidge Prof. Harrington Prof. Harrington Prof. Faif and Dr. Vejux-Tyrode
†119. Pediatries, 2 courses 120. Periatries 121. Dermatology 122. Advanced Dermatology 123. Syphilis †124. Advanced Clinical Neurology †126. Normal Anat. of Nervous System †127. Path. Anat. of Nervous System †128. Advanced General Neurology †130. Psychiatry †131. Objology †131. Opiology †132. Anatony of the Ear †133. Ophthalmology †134. Ophthalmology †135. Ophthalmology †136. Ophthalmology †137. Oper. Laryngology †138. Ophthalmology †138. Ophthalmology †139. Minology and Laryngology †139. Rimology and Laryngology †140. Hygiene, general

* Time includes months named. When time and fcc are "special," arrangements must be made with the instructor.

† Women admitted.

† Women admitted.

SUMMER COURSES OF INSTRUCTION IN THE MEDICAL SCHOOL. 1904.

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	Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
	Elementary Anatomy	Dr. E. Taylor	Medical School	22	July 1	July 30	July 30 Mo.Tu.W.T.F.	10-1	\$20
	Anatomy of Nose and Throat	Dr. Mosher	Medical School	9			Special		15
o Amat.	Anat. of male genito-urinary organs Dr. Whiteside	Dr. Whiteside	Medical School	23	July		Special		25
4 An. o.	An. of female genito-urinary organs Dr. Wadsworth	Dr. Wadsworth	Medical School	2	July	Aug.	Mo.Tu.W.T.F.	10-12	20
5 Histology	logy	Dr. Lewis	Medical School	24	June 27	27 July 29	29 Mo. Tu. W. T. F.	10	*02
6 Embr	Embryology	Dr. Lewis	Medical School	24	June 27 July		29 Mo.Tu.W.T.F.	2-5	*02
7 Physi	Physiology	Prof. Porter	Medical School	30	June 29	29 Aug. 1	1 Daily	9-5	40*
8 Gen.	Gen. Chem. and Qualitat. Anal.	Prof. Hills	Medical School	25	July 5	Aug.	6 Mo.Tu.W.T.F.	10-4	*08
9 Adv.	Adv. Physiol. and Pathol. Chem.	Dr. Emerson	Medical School				Special		
10 Physi	Physiological Chemistry	Dr. Emerson	Medical School	20	July 1	1 July 29	29 Mo. Tu.W. T. F.	1-6	20
11 Urina	Urinary Analysis	Dr. Emerson	Med.Sch. & Cit. Hos.	20	July 1	July 29	29 Mo. Tu.W. T.F.	T.	50
12 Pathology	logy	Prof. Mallory	City Hospital	41	July 5	Aug.	20 Daily	1-6	90
13 Pathology	logy	Dr. Magrath	Med. Sch., Carney and L. I. Hosp.	41	July 5	5 Aug. 20 Daily	Daily	31	35*
14 Histo	Histological Diagnosis	Dr. Wright	Mass. Gen. Hosp.	20	Special	Special	Special Special Mo.Tu.W.T.F.	2-4	30*
15 Bacte	Bacteriology	Dr. Page	Medical School	25	July 11	Aug. 12	July 11 Aug. 12 Mo. Tu. W. T. F.	00	30*
16 Clinic	Clinical Bacteriology	Dr. Wright	Mass. Gen. Hosp.	20	Special	Special	Mo.Tu.W.T.F.	2-4	30*
17 Bacte	Bacteriology	Dr. Perry	Medical School	25	Aug. 15	Sept. 16	Aug. 15 Sept. 16 Mo. Tu. W. T. F.	3.15	30*
18 Public	Public Health Bacteriology	Dr. Hill					Special	:	:

19	Diag. Infect. Diseases of Animals Dr. Frothingham		Medical School	:	•	:	Special	:	30*
50	General Medical Course	Staffs of Hospitals			July	5 July 30	Daily	9-1	\$00
21	General Medical Course	Staffs of Hospitals			Aug.	1 Aug. 27	7 Daily	9-1	*09
52	Clinical Medicine	Dr. Jackson	City Hospital	20	July	2 Aug. 1	2 Aug. 16 Tu. Th. S.	10	20*
23	Clinical Medicine	Dr. Vickery	Mass. Gen. Hosp.	13	July	1 July 29	Mo. We. Fr.	10-11	15
24	Clinical Medicine	Dr. Vickery	Mass. Gen. Hosp.	14	Aug.	1 Aug. 31	1 Mo. We. Fr.	10-11	15
25	Valvular Diseases of Heart	Dr. Stone	Mass. Gen. Hosp.	26	July	1 July 31	31 Daily	10-11	20*
26	Clinical Medicine	Dr. J. N. Coolidge	City Hospital	12	July	1 July 29	Mo. We. Fr.	10	15*
27	Clinical Medicine	Dr. J. N. Coolidge	City Hospital	12	Aug.	1 Aug. 26	6 Mo. We. Fr.	10	15*
28	Clinical Medicine	Dr. J. N. Coolidge	City Hospital	12	Sept.	5 Sept. 30	Mo. We. Fr.	10	15*
29	Lab. methods of Clinical Diagnosis	Dr. Hewes	Mass. Gen. Hosp.	18	July	1 July 31	Mo. We. Fr.	9-11	30*
30	Diabetes Mellitus	Dr. Joslin	City Hospital	9	Aug.	8 Aug. 2	25 Mo. Tu.	12	10*
31	Clinical Medicine	Dr. Donoghue	Dispensary	26	July	1 July 3	30 Daily	9-12	25*
32	Clinical Medicine	Dr. Donoghue	Dispensary	27	Aug.	1 Aug. 3	31 Daily	9-12	\$22*
33	Clinical Medicine	Dr. Donoghue	Dispensary	26	Sept.	Sept. 1 Sept. 30 Daily	Daily	9-12	25*
34	Clinical Medicine	Dr. Pratt	Mass. Gen. Hosp.	26	July	1 July 3	31 Daily	9-12	*08
35	Clinical Medicine	Dr. Pratt	Mass. Gen. Hosp.	26	Aug.	1 Aug. 3	31 Daily	9-12	*08
36	Clinical Medicine	Dr. Locke	City Hospital	25	June	June 1 June 29 Daily	9 Daily	10	20*
37	General Surgical Course	Staffs of Hospitals				:	Daily	9-41	*09
800	Clinical and Operative Surgery	Drs. Mixter & Brewster Mass. Gen. Hosp.	Mass. Gen. Hosp.	24	June	1 July 31	31 Daily	9-12	*22
39	Clinical and Operative Surgery	Drs. Mixter & Brewster Mass. Gen. Hosp.	Mass. Gen. Hosp.	24	Aug. 1	Sept. 30 Daily	Daily	9-12	25*
40	40 General Surgery	Dr. Munro	Carney Hospital	26	•	:	Daily	9-12	25
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Š.	Subject	Instructor	Place	No.of Exer- cises	Begins	Exer. Begins Ends	Days	Hour Fee	Fer
=	Major Surgery	Dr. J. B. Blake	City Hospital	12	June	2 June 3	2 June 30 Tu. Th. Sat.	10-12	\$20
21	Major Surgery	Dr. J. B. Blake	City Hospital	12	July	2 July 8	31 Tu. Th. Sat.	10-12	20
12	Canical Surgery	Dr. Lothrop	City Hospital	27	Aug.	1 Aug. 8	31 Daily	10-12	25*
-0	Out-patient and Minor Surgery	Dr. Cobb	Mass. Gen. Hosp.	.26	July	1 Aug. 1 Daily	1 Daily	10-12	15
45	Out-patient and Minor Surgery	Dr. Cobb	Mass. Gen. Hosp.	26	Ang.	1 Aug. 31	d Daily	10-12	15
100	Minor Surgery	Dr. Greenough	Mass. Gen. Hosp.	26	June	1 June 30 Daily	0 Daily	9-12	50
1 -	Minor Surgery	Dr. Greenough	Mass, Gen. Hosp.	26	July	1 July 3	31 Daily	9-12	20
5	Minor Surgery	Dr. Greenough	Mass. Gen. Hosp.	27	Ang.	1 Aug. 31 Daily	1 Daily	9-19	20
-	Minor Surgery	Dr. Greenough	Mass. Gen. Hosp.	26	Sept.	1 Sept. 3	30 Daily	9-12	20
(10)	Minor Genito-Urinary Surgery	Dr. Crandon	City Hospital	26	June	1 June 30	o Daily	9-12	20*
-	Minor Surgery	Dr. Crandon	City Hospital	27	July	1 July 3	31 Daily	9-12	20*
22	Minor Surgery	Dr. Crandon	City Hospital	27	Ang.	1 Aug. 3	31 Daily	9-12	20*
9.9	Minor Surgery	Dr. Crandon	City Hospital	27	Sept.	1 Sept. 30	0 Daily	9-12	20*
法	Gen. Surgery of Children	Prof. Burrell and Assts. Children's Hosp.	Children's Hosp.	98	July	1 July 3	31 Daily	33-41-12	\$09
10	(4en. Surgery of Children	Prof. Burrell and Assts. Children's Hosp.	Children's Hosp.	36	Ang.	Ang. 1 Ang. 31 Daily	1 Daily	33-4-2	20*
99	Gen. Surgery of Children	Prof. Burrell and Assts. Children's Hosp.	Children's Hosp.	36	Sept.	1 Sept 8	30 Daily	31-12	20*
10	Genito-Urinary Surgery	Dr. Watson	City Hospital	13	June	Jane 2	June 1 June 29 Tu. Th. Sat.	11-12	25
99	58 Genito-Urinary Surgery	Dr. Thorndike	City Hospital	53	July	July 1 Aug. 31 Daily	I Daily	10	25*

0	59 Genito-Urinary Diseases	Dr. Whiteside	Dispensary	56	July	1'July 31 Daily	31 Dai	Aî	94-12	15
2	Genito-Urinary Diseases	Dr. Whiteside	Dispensary	22	Aug.	1 Ang.	31 Dailly	٧.	94-12	15
in,	Cystoscopy and Cryoscopy	Dr. Whiteside	Dispensary	01	July	1 July	31 Daily	ly.	11-1	90
1.00	Pathology of the Prostate	Dr. Crandon	City Hospital	:	:		Special	rial	:	25
	Orthopedic Surgery	Prof. Bradford	Children's Hosp.	12	July	1 Aug.	15 Tu.	Aug. 15 Tu. Th. Sat.	9-11	25*
	Orthopedic Surgery	Dr. Lovett	Children's Hosp.	18	July	1 Aug	15 Tu.	Sat.	344	25*
	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	June	1 June	101	Mo. We. Fr.	9-101	25*
	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	July	1 July	29 Mo.	We. Fr.	9-101	25*
	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	Aug.	1 Aug.	26	Mo. We. Fr.	9-101	*57
	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.II.	12	Sept.	2 Sept.	28 Mo.	We. Fr.	9-101	25*
	Orthopedic Surgery	Drs. Brackett and Dane Children's Hosp.	Children's Hosp.	12	July	1 Aug.	15 Mo.	Wed.	CO (C)	20
	Oesophageal Surgery	Dr. Mixter	Mass. Gen. Hosp.	16	July	1 Aug.	31	Mo. Wed.	12-1	*62
	Fractures	Dr. Cotton	City Hospital	20	June 1	June 16 Aug.	1 Tu.	Tu. Th. Sat.	9-10	30
	Fractures	Dr. Cotton	City Hospital	20	Aug.	1 Sept. 15		Tu. Th. Sat.	9-10	30
-	Diseases of the Rectum	Dr. Faulkner	City Hospital	77	July	2 July	31 Tu.	Tu. Th. Sat.	9-10	15
	Diseases of the Rectum	Dr. Faulkner	City Hospital	7.7	Aug.	2 Aug.	30 Tu.	Th. Sat.	9-10	15
	The X-ray in Surgery	Dr. Codman	Mass. Gen. Hosp.	12	June	1 June	230	Mo. We. Fr.	12-1	*()6
	The X-ray in Surgery	Dr. Codman	Mass. Gen. Hosp.	12	July	1 July	29 Mo.	Mo. We. Fr.	12-1	20*
	The X-ray in Surgery	Dr. Codman	Mass. Gen. Hosp.	12	Aug.	1 Aug.	26 Mo.	We. Fr.	12-1	20*
=	Surgical Diagnostic Radiology	Dr. Brown	Children's Hosp.	16	June	1 June	62	Mo. Tu. We. S.	9-+	*02
3	Surgical Diagnostic Radiology	Dr. Brown	Children's Hosp.	16	July	2 July	27 Mo.	2 July 27 Mo. Tu. We. S.	9-4	20*

N. o.	Subject	Instructor	Place	No. of Exer- cises	No. of Exer- Begins cises	Ends	Days	Hour	Fee
80	Surgical Diagnostic Radiology	Dr. Brown	Children's Hosp.	16	Aug. 1	1 Aug. 27	27 Mo. Tu. We. S.	4-6	*50*
$\frac{x}{2}$	Clinical Obstetrics	Prof. Green	Lying-in Hospital		•	:	Special		30
85	Clinical Obstetrics	Dr. Friedman	Lying-in Hospital	13	July	July 29	29 Mo. We. Fr.	11	50
88	Clinical Obstetrics	Dr. Newell	Lying-in Hospital	14	Aug. 1	Aug. 31	Mo. We. Fr.	11	07
78	Clinical Obstetrics	Dr. Swain	Lying-in Hospital	13	Sept. 2	Sept. 30	2 Sept. 30 Mo. We. Fr.	11	20
85	Operative Gynaecology	Dr. Storer	Carney Hospital	12					25*
98	Clinical and Operative Gynaecology Dr. Newell	Dr. Newell	City Hospital	13	July 2	July 30	2 July 30 Tu. Th. Sat.	9-11	25
200	Clinical and Operative Gynaecology Dr. Newell	Dr. Newell	City Hospital	13	Aug. 2	2 Aug. 30	Aug. 30 Tu. Th. Sat.	9-11	25
88	Clinical and Operative Gynaccology Dr. Young	Dr. Young	City Hospital	14	Sept. 1	Sept. 29	1 Sept. 29 Tu. Th. Sat.	9-11	25
89	Minor Gynaecology	Dr. Friedman	City Hospital	13	July 2	2 July 30	30 Tu. Th. Sat.	9-11	50
90	Minor Gynaecology	Dr. Friedman	City Hospital	13	Aug. 2	Aug. 30	2 Aug. 30 Tu. Th. Sat.	9-11	20
16	Minor Gynaecology	Dr. Friedman	City Hospital	14	Sept. 1	Sept. 29	1 Sept. 29 Tu. Th. Sat.	9-11	20
9.5	Pediatrics	Dr. Morse	Children's Hosp.	13	Aug. 2	2 Aug. 30	Aug. 30 Tu. Th. Sat.	$11\frac{1}{2}$	20*
93	Pediatrics	Dr. Morse	Infants' Hospital	12	June 1	June 29	1 June 29 Mo. Wc. Fr.	$11\frac{1}{2}$	*07
94	Pediatrics	Dr. Ladd	Children's Hosp.	12	Sept. 1	Sept. 27	Sept. 27 Tu. Th. Sat.	11	*97
95	Pediatrics	Dr. Dunn	Infants' Hospital	12	July 1	July 27	27 Mo. We. Fr.	11	*07
96	Dermatology	Prof. Bowen	Mass. Gen. Hosp.	14	June 1	June 30	June 30 Mo. We. Th.	10-11	25
97	Dermatology	Dr. White	Mass. Gen. Hosp.	13	July 1	July 29	1 July 29 Tu. Th. Fr.	93	20
86	Dermatology	Dr. White	Mass. Gen. Hosp.	13	Aug. 2	Aug. 29	2 Aug. 29 Tu. Th. Fr.	93	50
66	Syphilis	Dr. Post	Dispensary	18	June	July 15	June I July 15 Mo. We. Fr.	$11-12\frac{1}{2}$	25

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11-124	6	10	9-12	6	10-12	9-11	9-11	9-11	9-11	$9\frac{1}{2} - 12\frac{1}{2}$	+	9-10	10	10	10	10	10-11	10-11	10	10	Spe'l
51 Aug. 31 Mo. We. Fr.	2 July 2 Tu. Th. Sat.	Tu. Th. Sat.	Sept. 23 Mo. We. Fr.	July 29 Mo. We. Fr.	July 27 Mo. We. Fr.	June 30 Daily	July 30 Daily	1 July 29 Mo. We. Fr.	3 Oct. 31 Mo. We. Fr.	5 Aug. 6 Tu. We. Th. S.	6 Aug. 6 Mo. We. Fr.	1 Aug. 12 Mo. Fr.	1 June 27 Mo. We. Fr.	2 July 11 Tu. Th. Sat.	16 Aug. 22 Mo. We. Fr.	24 Sept. 30 Mo. We. Fr.	1 Aug. 15 Mo. We. Fr.	Sept. 30 Mo. We. Fr.	1 Aug. 12 Mo. We. Fr.	Aug. 15 Sept. 23 Mo. We. Fr.	5 Aug. 16 M.Tu.W.Th.F. Spe'l
July 5	June		Aug.	July	July	June	July	July	Oct.	July	July	Aug.	June	June	July 16	Aug. 2	July	Aug. 17	July	ug. 1	July
18	14	15	24 A	12 J	12 J	24	26 J	13 Л	13	20 J	15 J	4	12 J	18	18 J	17	18	18	18 J	18 A	30
Dispensary	Eye and Ear Inf.	Eye and Ear Inf.	Eye and Ear Inf.	Eye and Ear Inf.	Eye and Ear Inf.	Eye and Ear Inf.	Eye and Ear Inf.	Medical School	Medical School	H. M. S. & Long Isl.	Medical School	M.G.H. & Long Isl.	City Hospital	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	City Hospital	City Hospital	Dispensary	Dispensary	Medical School
Dr. Post	Dr. Standish	Dr. Jack	Dr. Quackenboss	Dr. Spalding	Prof. Blake	Dr. Crockett	Dr. Crockett	Dr. Hammond	Dr. Hammond	Dr. E. W. Taylor	Dr. E. W. Taylor	Dr. Waterman	Dr. Farlow	Dr. Clark	Dr. Clark	Dr. Clark	Dr. Coffin	Dr. Coffin	Dr. Mosher	Dr. Mosher	Prof. Harrington & Dr. Walker
Syphilis	Ocular Symptoms in Gen'l Diseases Dr. Standish	Ophthalmology	Ophthalmology	Ophthalmology	Otology	Clinical Otology	Clinical Otology	Anatomy of the Ear	Anatomy of the Ear	Neurology	Anatomy of Central Nervous System Dr. E. W. Taylor	Neurological Diagnosis	Diseases of Nose and Throat	Laryngology	Laryngology	Laryngology	Laryngology	Laryngology	Diseases of Nose and Throat	Diseases of Nose and Throat	Hygiene
100	101	102	103	104	105	106	107	108	109	110	=======================================	112	113	114	115	116	111	118	119	120	121

TABULAR VIEW OF UNDERGRADUATE COURSES. FIRST YEAR - First Half-Year

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	Monday.	TUESDAY.	Wednesday.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	October, January. Anatomy. L. Room C. November, Pecember. Section A, Dissection. Rooms D and I Section B, Histology. Lab. Room G.	October, Jamaary. Anatomy. L. Room C. November, December. Section A, Dissection. Rooms D and F. Section B, Histology. Lab. Room G.	Oct., Dec., Jan. Anatomy. L. Room C. Noember. Noember. Rooms D and F. Sect. B, Histology. Lab.:Room G.	Anatomy. L. Room C. November. Sect. A. Dissection. Rooms D and F. Sect. B., Histology. Lab. Room G. Section A, Dissection. Rooms D and F. Section A, Histology. Lab. Room G.	In C. November. November. Histology I. Room C. Ther. Laber. Lab. Room G.	Anatomy, I., Room C.
10-1	Section A, Anato Anatomy. 1st an Anatomy. 2d an	Anatomy. Dissection. Roc 1st and 3d weeks. Section 2d and 4th weeks. Section	October, November, December. on. Rooms D and F. Section B, Histology. Laborans, January. Section A, Rooms D and F. Section B, Room G. Section A, Room G. Section B, Room S and F.	October, November, December. Section A, Anatomy. Dissection. Rooms D and F. Section B, Histology. Laboratory. Room G. January. Anatomy. 1st and 3d weeks. Section A, Rooms D and F. Section B, Rooms G. Anatomy. 2d and 4th weeks. Section A, Room G. Section B, Rooms D and F.	atory. Room G.	Anatomy. I Room C. 10-11. Histology. I Room C. 11-12.
2-3	Uctoher. Histology. L. Room C. Room C. November, December, January. Section A, Histology. Lab. Room G. Section B, Anatomy. Dissection. Root	Octoher. Histology. L. Room C. Room C. November, December, January. Section B, Anatomy. Dand F.	Oct., Nov., Dec. Histology. L. Room C. January. Sect. A. Hist. Lab. Sect. B. Dissection Rooms D. and F.	Histology, L. Anatomy, L. Room C. November, December, January, Section A, Histology, Lab. Room G. Section B, Anatomy. Lab. Rooms D and F.	Anatomy. L. Room C. nber, Aanuary. Lab. Room G.	
3-6	Section A, Histology. Lab. Anatomy. 1st and 3d weeks. Anatomy. 2d and 4th weeks.	Octoi Histology. Lab. Room G. 1st and 3d weeks. Section. 2d and 4th weeks. Section.	October, November, December. Room G. Section B, Anatomy. Dissection. Roo January. Section A, Room G. Section B, Rooms D and F. Section A, Rooms D and F. Section B, Room G.	October, November, December. Section A, Histology. Lab. Room G. Section B, Anatomy. Dissection. Rooms D and F. January. Anatomy. 1st and 3d weeks. Section A, Room G. Section B, Rooms D and F. Anatomy. 2d and 4th weeks. Section A, Rooms D and F. Section B, Room G.	D and F.	

		Second Half-Year.		
		Physiology. February 1 to March 5.		
	MONDAY.	TUESDAY. WEDNESDAY. THURSDAY. FRIDAY.	où	SATURDAY.
9-9.30	Conference. Room A.	Conference. Room A.		
9.30-9.50	Written Test. Rooms B and II.	Written Test. Rooms B and II.		
9.50-12	Laboratory Experiments. Rooms B and II.	I.ahoratory Exnamments	10-11	Recitation.
12-1	Recitation. In Sections. Rooms B and H.	Rooms B and II.	11-12	Demonstration. Room A.
		MARCH 7 TO MAY 21.		
9-9.30	Lecture. Room A.	Lecture. Room A.	0 0 45	Discussion of
9.30-10	Conference. Room A.	Conference. Room A.	04.0	Room A.
10-10.20	Written Test. Rooms B and II.	Written Test. Rooms B and H.	11-01	Recitation.
10.20-12.15	Laboratory Experiments. Rooms B and II.	Laboratory Experiments. Rooms B and II.		Room A.
12.15-1	Recitation. In Sections. Rooms B and H.	Discussion of Theses. Room A.	11-12	Demonstration. Room A.
		May 23 to May 31.		
		Laboratory Experiments. Rooms B and II.		
		Physiological and Pathological Chemistry.		
2-3	Lecture. Monday, Tuesday, Thursday, and Friday. Room A. Laboratory. Wednesday.	A. Thursday, and Friday.		
3-5.30	Laboratory. Daily except Saturday.	except Saturday.		

SECOND YEAR. - First Half-Year.

JANUARY.	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.	Tuesday, Thursday, and Saturday.	10.30-1 Monday, Wednesday, and Friday. 1 and 2 weeks. 3 and 4 weeks. Pathology.	Laboratory, certain Parisance Daily, Laboratory, Smith, Daily,		Daily except Saturday.	Suggeal Pathology. Laboratory. Nichols. H. M. S.
	9-10	9-1	10,30-1			1	27 70
DECEMBER.	Section I, Room B. H.	, C.	Pathology of the Nervous System.	Laboratory. Southard. H. M. S.	٠		
November.	Pathology. Laboratory. Daily. Section I, Room B. Section II, Room H.	Pathology. Lectures. Daily. Room C.	Bacteriology. Lectures. Daily except Saturdays. Room A.		Bacteriology. Laboratory.	Section I, Room B. Section II, Room II.	
OCTOBER.	Pathology.	Pathology. Lo	Bacteriology Daily except Sati		Bacteriology	Section I, Room B.	
	9-12	12-1	2-3	3-4	70	4-5	5-6

Second Half-Year.

	Monday.	. TUESDAY.	Wednesday.	THURSDAY.	FRIDAY.	SATURDAY.
	M. G. H.	M. G. H.	В. с. п.	М. G. H.	M. G. II.	В. С. И.
6	Clinical Medicine Clinic Vickery	Theory & Practice Clinic Cutler	Clinical Medicine Clinic Sears	Clinical Medicine Clinic Shattuck	Clinical Medicine Clinic Vickery	Clinical Medicine Clinic Jackson
10	Theory & Practice Clinic Fitz	Surgery Clinic M. H. Richardson	Surgery Clinic Lothrop	Theory & Practice Clinic Cutler	Surgery Clinic M. H. Richardson	Surgery Clinic J. B. Blake
11 12	92	Section Work				
83						
ಣ	Hygiene. L. Harrington Room A	Theory&Practice. I. Fitz Room A	Hygiene. L. Harrington Room A	Theory&Practice. L. Fitz Room A	Hygiene. L. Harrington Room A	
4	Surgery. L. Warren Room C	Pharmacology. L. Pfaff Room A	Pharmacology. L. Pfaff Room A	Surgery. L. Warren Room C	Pharmacology, L. Pfaff Room A	
ro	Surgical Technic 6 lectures Lothrop Room C	Surgery. L. Warren Room C			Surgery. L. Warren Room C	

THIRD YEAR. - First Half-Year.

SATURDAY.	Clinical Medicine Clinic Shattuck, M. G. II.	Theory and Practice Clinic Fitz, M. G. II.				Orthopedic Surgery L. Bradford Ch. H.	
FRIDAY.	Clinical Medicine Clinic Scars, B. C. II.	Pediatries Clinical L. Rotch. No. Grove St.			Theory and Practice L. Fitz Room E	Therapeutics. L. Plaff Room E	Obstetries. R. Newell Room E
THURSDAY.	Neurology Clinic Putnam, M. G. H.	Theory and Practice Clinic Fitz, M. G. H.	Section Work.		Obstetrics. L. W. L. Richardson Room E	Pediatrics, L. Roth Room E	Surgery. R. Burrell Room C.
Wednesday.	Clinical Medicine Clinic Shattuck, M. G. H.	Dermatology Clinic Bowen, M. G. H.	Section		Obstetrics Conference Green Room E	Surgery. L. Warren Room C	
TUESDAY.	Clinical Medicine Clinic Jackson. B. C. H.	Clinical Surgery Clinical L. Gay or Burrell, B. C. H.			Theory and Practice L. Fitz Room E	Dermatology. L. Bowen Room E. Jec., Jan. Syphilis. L. Post Room E. Room E. Room E.	Oct., Nov. GU. Surgery. L. Thorndike Room E
Monday.	Theory and Practice (Think Theory M. G. II.	Surgery Clinic Warren M. G. H.			Obstetrics. L. W. L. Richardson Room E	Surgery. L. Warren Room C	
	Class Erercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

Second Half-Year.

SATURDAY.	Clinical Medicine Clinic Shattuck, M. G. H.	Theory and Practice Fitz, M. G. H.			Psychiatry Clinic Cowles, McL. H.		
FRIDAY.	Clinical Medicine Clinic Withington, B. C. H.	Feb., Mar. Pediatrics Clinical L. Morse, No. Grove St. Apr., May Sphilis Clinical L. Post, B. D.	7		Gynaecology. L. Davenport Room E	Obstetrics. R. Newell Room E	
THURSDAY.	Clinical Medicine Clinic Sears, B. C. II.	Clinical Surgery Clinical L. Burrell, B. C. H.	Section Work.		Obstetrics. I W. L. Richardson Room E	Laryngology Lecture Coolidge, Room E	
WEDNESDAY.	Neurology Clinic Putnam, M. G. H.	Dermatology Clinic Bowen, M. G. H.	Section		Gynaecology L. or R. Davenport, Room E	Obstetrics Conference Green, Room E	
TUESDAY.	Clinical Medicine Clinic Withington B. C. II	Clinical Surgery Clinical L. Burrell, B. C. II.			Otology Lecture Blake, Room A	Pediatrics. L. Rotch Room E	
Monday.	Neurology Clinic Putnam, M. G. II.	Surgery, Clinic M. H. Richardson M. G. H.			Obstetrics. L. W. L. Richardson Room E.	Pediatrics. R. Morse Room E	
	Class Exercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

FOURTH YEAR. - OCTOBER.

			FOURIR IEAR OCIUDER.	CIUBEK,		
	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
0.	Clinical Medicine Prac. Therapeutics Shattuck, M. G. H.	Otology Clinic (s, 2 hrs.) Hammond, E. & E. I.		Practical Therapeutics Sears, B. C. II.		
		Gynaecology Clinic Green, B. C. H.		Otology Clinic (s, 2 hrs.) Hammond, E. & E. I.	Gynaecology Clinic Green, B.C.II.	Otology Clinic (s, 2 hrs.) Hammond, E.& E.I.
	Ophthalmology Clinic (s) Standish, E. & E. I.	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Ophthalmology Clinic (s) Standish, E. & E. I.	Ophthalmology Clinic (s) Standish, E. & E. 1.	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Ophthalmology (Timic (s) Standish, E. & E. I.
10	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.		Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.	Clinical Surgery Lecture (2 lrrs.) Burrell & Blake B. C.H.	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. II.	
		Dermatology Clinic White, M. G. II.			Dermatology Clinic White, M. G. II.	
		Laryngology Clinic (s) Coolidge, M. G. H.		Laryngology Clinic (s) Coolidge, M. G. II.		Laryngology Clinic (s) Coolidge, M. G. H.
	Ophthalmology Clinic (s) Spalding, E. & E. I.		Ophthalmology Clinic (s) Clap, E. & E. I.	Ophthalmology Clinic (s) Spalding, E. & E. I.		Ophthalmology Clinic (s) Clap, E. & E. I.
п	Syphilis Clinic (s) Post, B. D.	Ophthalmology Clinic (s) Jack, E. & E. I.	Syphilis Clinic (s) Post, B. D.		Syphilis Clinic (s) Post, B. D.	Surgical operations M. G. II.
	Neurology Clinic Putnam, M. G. II.	Diagnosis in Clinical Surgery Clinic Warren & Porter M. G. H.		Neurology Clinical Lecture Walton, M. G. II.	Ophthalmology Clinic (s) Jack, E. & E. I. Surgical operations B. C. II.	Neurology Clinical Lecture Walten, M. G. II.

Ophthalmology Lecture Standish E. & E. I.					Orthopedic Surg. Lecture Bradford H. M. S. or Ch. H.		
Ophthalmology Lecture Standish E. & E. I.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter II. M. S.	Clin. Microscopy Lab. Whitney H. M. S.				Clinical Medicine Conference Room A	Operative Surgery Lecture Monks, Room D
Genito-urin. Dis. Clin. Lecture Thorndike, B. C. H.		Clin. Microscopy Lab. Whitney H. M. S.	,		Otology Lecture Blake, Room A		Laryngology Lecture DeBlois, Room E
Syphilis Lecture Post, B. D.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.			Anat. of Ear R. (s) Hammond, H. M. S.			Regional Surgery M. H. Richardson Room C
		Clin. Microscopy Lab. Whitney H. M. S.					Operative Surgery Lecture Monks, Room D
Clinical Surgery Lecture Mumford M. G. H.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter II. M. S.			Anat. of Ear R. (s) Hammond II. M. S.	Otology Lecture Blake, Room A		Regional Surgery M. H. Richardson Room C
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Electives are in italics.

(s) Section of the class.

OVEMBER.

					The state of the s	
	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	Clinical Medicine Prac. Therapeutics Shartuck, M. G. H.	Otology Clinic (s, 2 hrs.) Hammond, E. & E.I.		Practical Therapeutics Sears, B. C. H.	Gynaecology Clinic Green, B. C. H.	
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		Gynaecology Clinic Green, B. C. H.		Otology Clinic (s, 2 hrs.) Hammond, E. & E. I.		Otology Clin.c (s, 2 hrs.) Hannond, E. & E. I.
	Ophthalmology Clinic (s) Standish, E. & E. I.	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Ophthalmology Clinic (s) Standish, E. & E. I.	Ophthalmology Clinic (s) Standish, E. & E. I.	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Oplithalmology Clinic (s) Standish, E. & E. I.
10	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. II.		Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. II.	Clinical Surgery Lecture (2 hrs.) B. C. II. Burrell & Blake	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.	
		Dermatology Clinic White, M. G. II.			Dermatology Clinic White, M. G. II.	
		Laryngology Clinic (s) Coolidge, M. G. II.		Laryngology Clinic (s) Coolidge, M. G. H.		Laryngology Clinic (s) Coolidge, M. G. H.
	Ophthalmology Clinic (s) Spalding, E. & E. I.		Ophthalmology Clinic (s) Clap, E. & E. I.	Ophthalmology Clinic (s) Spalding, E. & E. I.		Ophthalmology Clinic (s) Clap, E. & E. I.
11	Syphilis Clinic (s) Post, B. D.	Diagnosis in Clinical Surgery Warren & Porter M. G. H.	Syphilis Clinic (s) Post, B. D.		Syphilis Clinic (s) Post, B.D.	Surgical oper. M. G. II.
	Neurology Clinic Putnam, M. G. II.	Ophthalmology Clinic (s) Jack, E. & E. I.		Neurology Clin. Lect. Walton, M. G. II.	Ophthalmology Clinic (s) Jack, E. & E. I. Surgical oper. B. C. H.	Neurology Clin. Lect. Walton, M. G. H.
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Ophthalmology Lecture Standish E. & E. I.				Orthopedic Surg. Lecture Bradford Room A or Ch. H.		
Ophthalmology Lecture Standish E. & E. I.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.	Clin. Microscopy Lab. Whitney H. M. S.		Clinical Medicine Conference Room A		Operative Surgery Monks Room D
Genito-urin. Surg. Clin. Lect. Thorndike B. C. H.		Clin. Microscopy Lab. Whitney II. M. S.		Otology Lecture Blake Room A		Laryngology Lecture DeBlois Room E
Syphilis Lecture Post, B. D.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.					Regional Surgery M. H. Richardson Room C
		Clin. Microscopy Lab. Whitney H. M. S.		Operative Surgery Monks Room D		Regional Surgery M. H. Richardson Room C
Clinical Surgery Lecture Mumford M. G. H.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.		After Nov. 9 Operative Surgery Monks Room D	Otology Lecture Blake Room A		Oper, Obstetrics Lect. and Demons. Green Room C
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DECEMBER.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	Clinical Medicine Prac. Therapeuties Shaffuck, M. G. H.	Crocl		Practical Therapeutics Sears. B. C. H.	Gynuecology Clinic Green, B. C. H.	
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		Gynaecology Clinic Green, B. C. H.		Otology Clinic (s, 2 hrs.) Crockett, E. & E. I.		Otology Clinic (s, 2 hrs.) Crockett, E. & E. I.
	Ophthalmology Clinic (s, 2 lns.) Haskell, E. & E. I.	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Ophthalmology Clinic (s) Jack, E. & E. I.	Ophthalmology Clinic (s) Haskell, E. & E. I.	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Ophthalmology Clinic (s) Jack, E. & E. I.
10	Laryngology Clinic (s, 2 lns.) DeBlois, B. C. H.		Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.		Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. II.	
		Dermatology Clinic White, M. G. H.		Clinical Surgery Lecture (2 hrs.) Burrell & Blake B. C. II.	Dermatology Clinic White, M. G. H.	
		Laryngology Clinic (s) Coolidge, M. G. H.		Laryngology Clinic (s) Coolidge, M. G. H.		Laryngology Clinic (s) Coolidge, M. G. II.
			Ophthalmology Clinic (s) Clap, E. & E. I.			Ophthalmology Clinic (s) Clap, E. & E. I.
=	Syphilis Clinic (s) Post, B. D.	Ophthalmology Clinic (s) Spalding, E. & E. I.	Syphilis Clinic (s) Post, B. D.		Syphilis Clinic (s) Post, B. D.	Surgical oper. M. G. H.
	Neurology Clinic Putnam, M. G. II.	Diagnosis in Clinical Surgery Clinic Warren & Porter M. G. H.		Neurology Clin. Lecture Walton, M. G. II.	Ophthalmology Clinic (s) Spalding, E. & E. I. Surgical oper. B. C. H.	Neurology Clin. Lecture Walton, M. G. II.

				Orthopedic Surg. Lecture Bradford Room A		
	Exper. Physiol. Lab. (2 hrs.) W. T. Porter, H. M. S.	Clin. Microscopy Lab. Whitney H. M. S.		Clinical Medicine Conference Room A		Operative Surgery Monks Room D
Genito-urin. Surg. Clin. Lect. Thorndike B. C. H.		Clin. Microscopy Lab. Whitney H. M. S.		Otology Lecture Blake Room A		Laryngology Lecture DeBlois Room E
Syphilis Lecture Post, B. D.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.			Operative Surgery Monks Room D.		Regional Surgery M. H. Richardson Room C
		Clin. Microscopy Lab. Whitney H. M. S.			Syphilis Lecture Post Room A	Regional Surgery M. H. Richardson Room C.
Clinical Surgery Lecture Mumford M. G. H.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.			Otology Lecture Blake Room A		Oper. Obstetrics Lect. and Demon. Green Room C
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ANDARY.

	Saturday,			Otology Clinic (s, 2 hrs.) Crockett, E. & E. I.	Ophthalmology Clinic (s) Standish, E. & E. I.			Laryngology Clinic (s)	Ophthalmology Clinic (s) Clap, E. & E. I.	Surgical oper. M. G. II.	Neurology Clin. Lect. Walton, M. G. H.
	Friday.	Gynaecology Clinic Green, B. C. H.		j	Ophthalmology Clinic (s) Quackenboss E. & E. I.	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.	Dermatology Clinic White, M. G. II.	3		Syphilis Clinic (s) Post, B. D.	Oplithalmology Clinic (s) Jack, E. & E. I. Surgical oper. B. C. H.
	Thursday.	Practical Therapeutics Sears. B. C. H.		Otology Clinic (s, 2 hrs.) Crockett, E. & E. I.	Ophthalmology Clinic (s) Standish E. & E. I.		Clinical Surgery Lecture (2 hrs.) Burrell & Blake B. C. H.	Laryngology Clinic (s) Coolidge, M. G. H.	Ophthalmology Clinic (s) Spalding, E. & E. I.		Neurology Clin. Lect. Walton, M. G. II.
JANUARY.	Wednesday.				Ophthalmology Clinic (s) Standish, E. & E. I.	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.			Ophthalmology Clinic (s) Clap, E. & E. I.	Syphilis Clinic (s) Post, B. D.	
	Tuesday.	Orology Clinic (s, 2 hrs.) Crockett, E. & E. I.		Gynaecology Clinic Green, B. C. H.	Ophthalmology Clinic (s) Quackenboss E. & E. I.		Dermatology Clinic White, M. G. H.	Laryngology Clinic (s) Coolidge, M. G. H.		Diagnosis in Clinical Surgery. Clinic Warren & Porter M. G. H.	Ophthalmology Clinic (s) Jack, E. & E. I.
	Monday.	Clinical Medicine Prac. Therapeutics Shattuck, M. G. H.			Ophthalmology Clinic (s) Standish E. & E. I.	Laryngology Clinic (s, 2 hrs.) DeBlois, B. C. H.			Ophthalmology Clinic (s) Spalding, E. & E. I.	Syphilis Clinic (s) Post, B. D.	Neurology Clinic Putnam, M. G. II.
			6			10				11	

				Orthopedic Surg. Lecture Bradford Room A		
	Exper. Physiol. Lab. (2 hrs.) W.T. Porter H. M. S.	Clin. Microscopy Lab. Whitney H. M. S.		Clinical Medical Conference Room A		•
Genito-urin. Surg. Clin. Lect. Thorndike B. C. H.	Clin. Microscopy Lab. Whitney H. M. S.				Operative Surgery M. H. Richardson Room C	Laryngology Lecture DeBlois, Room E
Syphilis Lecture Post, B. D.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.					Oper. Obstetrics Demonstrations (s, 2 hrs.) H. M. S.
		Clin. Microscopy Lab. Whitney H. M. S.			Syphilis Lecture Post, Room A	Operative Surgery M. H. Richardson Room C
Clinical Surgery Lecture Mumford M. G. H.	Exper. Physiol. Lab. (2 lus.) W. T. Porter H. M. S.					Oper. Obstetrics Lect. & Dem. (I hr.) Green, Room C Demonstrations (s, 1 hr.)
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BRUARY.

Saturday.	Practical Therapeuties Sears. Room E			Ophthalmology Clinic (2 hrs.) Standish, E. & E. I.				Surgical operations M. G. II.	
Friday.	Gynarcology. Clinic Green, B. C. H.	Surgery Wards (s) M. G. H. & B. C. H.	Otology Clinic (2 hrs.) Hammond, E. & E. I.		Dermatology Clinic White, M. G. H.		Clinical Medicine Practical Exercise Clinic R. C. Cabot, M.G.H.		Surgical operations B. C. H.
Thursday.	Clinical Medicine Clinic Withington, B. C. II.			Cimical Surgery Lecture (2 hrs.) Burrell, Monks, & Blake, B. C. H.		Orthopedic Surg. Clinic Bradford, Ch. H.			
Wednesday.		Surgery Wards (s) M. G. H. & B. C. H.	Otology Clinic (2 hrs.) Hammond, E.&E.I.	Ophthalmology Clinic (2 hrs.) Standish, E. & E. I.			Clinical Medicine Practical Exercise Clinic R. C. Cabot, M.G.H.		
Tuesday.	Gynaecology Clinic Green, B. C. H.	Surgery Wards (s) M. G. H. & B. C. H.		Dermatology Clinic White, M. G. H.	Orthopedic Surg. Clinic Bradford, Ch. H.		Diagnosis in Clinical Surgery. Clinic. M. H. Richardson M. G. H.		
Monday.	Clinical Medicine Prac. Therapeutics Shattuck, M. G. H.		Otology Clinic (2 hrs.) Hammond, E. & E. I.			Surgical Clinic M. H. Richardson M. G. H.			
		a			10			11	

				Psychiatry Clinic Noyes, B. I. H.	Orthopedic Surg. Clinic Bradford, Ch. II.		
Contagious Dis. Clinic (8) McCollom B. C. H.		Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.	Clin. Microscopy Lab. Whitney, II. M. S.	Municip. Sanita. Lecture Durgin, Room C	Clinical Medicine Conference Room C		Hygiene Lecture Harrington, Room A Operative Surgery Dem. (8, 2 hts.) H. M. S.
Genito-urin. Surg. Clin. Lect. Watson B. C. H.		Clin. Microscopy Lab. Whitney H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C			Hygiene Lecture Harrington, Room A Harrington, Room A Operrdive Surgery Dem. (s, 2 hrs.) H. M. S. H. M. S.
	Neurology Clinic Knapp, B. C. II.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.		Municip. Sanita. Lecture Durgin, Room C			Operative Surgery Dem. (s, 2 hrs.) H. M. S.
Contagious Dis. Clinic (s) McCollom B. C. H.		Clin. Microscopy Lab. Whitney H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C	Orthopedic Surg. Clinic Bradford, Ch. H.	Gynaecology Conference Green, Room C	Operative Surgery Dem. (s, 2 lns.) H. M. S.
Clinical Surgery Lecture M. H. Richardson and Mumford M. G. H.	Neurology Clinic Knapp, B. C. II.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.		Psychiatry Clinic Cowles, McL. II.			Operative Surgery Dem. (s, 2 hrs.) H. M. S.
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ARCH.

	Saturday.	Practical Therapeuties Sears. Room E		Ophthalmology Clinic (2 hrs.) Standish, E. & F. I.					Surgical oper. M. G. H.	
The same of the sa	Friday.	Gynaecology Clinic C. M. Green, B.C.H.	Surgery Wards (s) M. G. H. & B. C. H.	Otology Clinic (2 hrs.) Hammond, E.&E.I.		Dermatology Clinic White, M. G. H.		Clinical Medicine Practical Exercise Clinic R. C. Cabot, M.G.II.		Surgical oper. B. C. II.
	Thursday	Clinical Medicine Gynaecology Clinic Withington, B. C. II, C. M. Green, B.C.H.			Clinical Surgery Lecture (2 hrs.) Burvell, Monks, & Blake, B. C. II.		Orthopedic Surg. Clinic Bradford, Ch. H.			
MARCH.	Wednesday.		Surgery Wards (s) M. G. H. & B. C. H. M. G. H. & B. C. H.	Otology Clinic (2 lns.) Hammond, E.&E.I.	Ophthalmology Clinic (2 hrs.) Standish, E. & E. I.			Clinical Medicine Practical Exercise Clinic C. Cabot, M. G. H.		
	Tuesday.	Gynaecology Clinic Green, B. C. H.	Surgery Wards (s) M. G. H. & B. C. H.			Dermatology Clinic White, M. G. II.	Orthopedic Surg. Clinic Bradford, Ch. II.	Diagnosis in Clinical Surgery Clinic (2 hrs.) M. H. Richardson M. G. H.		
	Monday.	Clinical Medicine Prac. Therapeutics Shattuck, M. G. H.		Otology Clinic (2 hrs.) Hammond, E.&E.I.			Surgical Clinic M. H. Richardson M. G. H.			
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				Psychiatry Clinic Noyes, B. I. H.	Orthopedic Surg. Clinic Bradford, Ch. H.		
Contagious Diseases Clinic (s) McCollom, B. C. H.		Exper. Physiol. Lab. (2 lns.) W. T. Porter, H.M.S.	Clin. Microscopy Lab. Whitney, H. M. S.	Municip. Sanita. Lecture Durgin, Room C	Clinical Medicine Conference Room C		Hygiene Lecture Lecture Operative Surgery Dem. (s, 2 hrs.) H. M. S.
Genito-urin, Surg. Clin, Lect. Watson, B. C. H.		Clin. Microscopy Lab. Whitney, H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C			Hygiene Lecture Harrington, Room A Harrington, Room A Operative Surgery Operative Surgery Dem. (s, 2 brs.) H. M. S.
Neurology Clinic Knapp, B. C. H.		Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.		Municip. Sanita. Lecture Durgin, Room C			Operative Surgery Dem. (s, 2 hrs.) H. M. S.
Contagrious Diseases Clinic (s) McCollom, B. C. H.		Clin. Microscopy Lab. Whitney, H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C	Orthopedic Surg. Clinic Bradford, Ch. H.	Gynaecology Conference Green, Room C	Hygiene Lecture Harrington, Room A Operative Surgery Dem. (s, 2 lns.) H. M. S.
Clinical Surgery Lecture M. H. Richardson and Mumford M. G. H.	Neurology Clinic Knapp, B. C. H.	Exper. Physiol. Lab. (2 lus.) W. T. Porter H. M. S.		Psychiatry Clinic Cowles, McL. H.			Operative Surgery Dem. (s, 2 hrs.) H. M. S.
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APRIL.

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	Monday.	Clinical Medicine Prac. Therapeutics Shattuck, M. G. H.				Surgical Clinic M. H. Richardson M. G. H.				
	Tuesday.	Gynaecology (Timic Green, B. C. H.	Surgery Wards (s) M. G. H. & B. C. H.	Otology Clinic (2 hrs.) Crockett, E. & E. I.		Dermatology Clinic White, M. G. H.	Orthopedic Surg. Clinic Bradford, Ch. H.	Diagnosis in Clinical Surgery Clinic (2 hrs.) M. H. Richardson M. G. H.		
AFKIL.	Wednesday.		Surgery Wards (s) M. G. H. & B. C. H.		Ophthalmology Clinic (2 hrs.) Standish E. & E. I.			Clinical Medicine Practical Exercise Clinic C. Cabot, M. G. H.		
	Thursday.	Clinical Medicine Clinic Withington, B. C. H.		Otology Clinic (2 hrs.) Crockett, E. & E. I.	Clinical Surgery Lecture (2 hrs.) Burrell & Blake B. C. H.		Orthopedic Surg. Clinic Bradford, Ch. H.			
	Friday.	Gynaecology Clinic Green, B. C. H.	Surgery Wards (s) M. G. H. & B. C. H.			Dermatology Clinic White, M. G. H.		Clinical Medicine Practical Exercise Clinic G. Cabot, M. G. II.		Surgical oper. B. C. H.
	Saturday.	Otology Clinic (2 hrs.) ('rockett, E. & E. I.	Practical Therapeutics Sears. Room E		Ophthalmology Clinic (2 hrs.) Standish E. & E. I.				Surgical oper. M. G. H.	

				Psychiatry Clinic Noyes, B. I. H.	Orthopedic Surg. Clinic Bradford, Ch. H.		
Contagious Diseases Clinic (s) McCollom, B. C. H.		Exper. Physiol. Lab. (2 hrs.) W. T. Porter H. M. S.	Clin. Microscopy Lab. Whitney, H. M. S.		Clinical Medicine Conference Room C		Hygiene Lecture Harrington, Rm. A Operative Surgery Dem. (s. 2 hrs.) H. M. S.
Genito-urin. Surg. Clinical Lecture Watson, B. C. IL		Clin. Microscopy Lab. Whitney, H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C			Hygiene Lecture Harrington, Rm. A Operative Surgery Dem. (s, 2 hrs.) H. M. S.
Neurology Clinic Knapp, B. C. H.		Exper. Physiol. Lab. (2 hrs). W. T. Porter H. M. S.	•				Operative Surgery Dem. (s, 2 hrs.) H. M. S.
Contagious Diseases Clinic (s) McCollom, B. C. H.		Clin. Microscopy Lab. Whitney, H. M. S.		Comp. El. Infec. Dis. Lecture Smith, Room C	Orthopedic Surg. Clinic Bradford, Ch. H.	Gynaecology Conference Green, Room C	Hygiene Lecture Harrington, Rm. A Operative Surgery Dem. (s, 2 hrs.) H. M. S.
Clinical Surgery Lecture M. H. Richardson and Mumford M. G. H.	Neurology Clinic Knapp, B. C. H.	Exper. Physiol. Lab. (2 lns.) W. T. Porter H. M. S.		Psychiatry Clinic Cowles, McL. H.			Operative Surgery Dem. (s, 2 hrs.) H. M. S.
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MAY

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	Monday.	Clinical Medicine Prac. Therapeutics Shattuck, M. G. H.				Surgical Clinic M. H. Richardson M. G. H.				
	Tuesday.	Otology Clinic (2 hrs.) Blake & Crockett E. & E. I.	Surgery Wards (s) M. G. H. & B. C. H.	Gynaecology Clinic Green, B. C. H.		Dermatology Clinic White, M. G. H.	Orthopedic Surg. Clinic Bradford, Ch. H.	Diagnosis in Clinical Surgery Clinic (2 hrs.) M. H. Richardson M. G. H.		
MAI.	Wednesday.		Surgery Wards (s) M. G. H. & B. C. H.		Ophthalmology Clinic (2 hrs.) Standish, E. & E. I.			Clinical Medicine Practical Exercise Clinic R. C. Cabot, M. G. H.		
	Thursday.	Clinical Medicine Clinic Withington, B. C. H.		Otology Clinic (2 hrs.) Blake & Crockett E. & E. I.	Clinical Surgery Lecture (2 hrs.) Burrell & Blake B. C. H.		Orthopedic Surg. Clinic Bradford, Ch. II.			
	Friday.		Surgery Wards (s) M. G. H. & B. C. H.	Gynaecology Clinic Green, B. C. H.		Dermatology Clinic White, M. G. H.		Clinical Medicine Practical Exercise Clinic R. C. Cabot, M. G. H.		Surgical oper. B. C. II.
	Saturday.	Otology Clinic (2 lirs.) Blake & Crockett E. & E. I.	Practical Therapeutics Sears. Room E		Ophthalmology Clinic (2 hrs.) Standish, E. & E. I.				Surgical oper. M. G. II.	

					Orthopedic Surg. Clinic Bradford, Ch. H.		
	Contagious Diseases Clinic (*) McCollom, B.C.H.	Exper. Physiol. Lab. (2 lns.) W. T. Porter, H.M.S.	Clin. Microscopy Lab. Whitney, H. M. S.		Clinical Medicine Conference Room C		Hygiene Lecture Larrington, Room A Harrington, Room A
	Genito-urin. Surg. Clin. Lect. Watson, B. C. H.	Clin. Microscopy Lab. Whitney, H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C			Hygiene Lecture Harrington, Room A
	Neurology Clinic Knapp, B. C. H.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter, H.M.S.					
	Contagious Diseases Clinic (s) McCollom, B. C. H.	Clin. Microscopy Lab. Whitney, H. M. S.		Comp. Et. Infec. Dis. Lecture Smith, Room C	Orthopedic Surg. Clinic Bradford, Ch. H.	Gynaecology Conference Green, Room C	Hygiene Lecture Harrington, Room A
Clinical Surgery Lecture M. H. Richardson and Mumford M. G. H.	Neurology Clinic Knapp, B. C. H.	Exper. Physiol. Lab. (2 hrs.) W. T. Porter, H.M.S.					
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1903.

DEGREES.

On March 16, 1904, degrees were conferred as follows: -

M.D.

Harold Winslow Ayres.
Horace Keith Boutwell, s.B. 1900.
George William Clarke.
Percy Greenough Drake, s.B. (Dartmouth Coll.) 1899.

John Joseph Mangan, A.B. (Holy Cross Coll.) 1883, A.M. (ibid.) 1896, M.D. (Coll. of P. & S.) 1891. Daniel Paul O'Brien, M.D.V. 1899. Ernest Lawrence Parker. Alexander Hamilton Rice, A.B. 1898.

M. D. (Out of course.)

Zabdiel Boylston Adams, as of the Class of 1903. Edward John Grainger, A.B. (Boston Coll.) 1898, as of the Class of 1903. David Woodbury Parker, A.B. (Dartmouth Coll.) 1899, as of the Class of

M. D. cum laude. (Out of Course.)

Thomas Newcomb Stone, as of the Class of 1903.

On Commencement Day, June 29, 1904, degrees were conferred as follows:—

M.D.

Joseph Ascher. Gerardo Monari Balboni. James Dellinger Barney, A.B. 1900. Daniel Edwin Bartlett. George Leon Bastian. Joseph Anthony Bianco. Allen Hanson Blake. Alfred Preston Bowen. Thomas Joseph Brennan. Walter Linn Burns, s.B. (Villanova Coll.) 1896, A.B. (ibid.) 1897. Frank Henry Carlisle. John Donovan Clark, s.B. 1901. Fred Ellsworth Clow. Leslie Erwin Coffin. Frank Aloysius Conlon. William Edward Connolly, A.B. 1898.

Edmund Gerrish Dearborn, A.B.
(Dartmouth Coll.) 1900.
Fred Fay Dexter.
Frederick August Donaldson, A.B.
1896.
Andrew Francis Downing, A.B.

1900. Edwin Lewis Drowne.

Laurence Francis Cusick.

Dana Warren Drury. Ernest Arey Dyer.

Charles Daniel Easton, A.B. (Brown Univ.) 1899, A.M. (ibid.) 1900.

Frank Birch Easton, A.B. (Brown Univ.) 1900.

Frank Albert Fearney.

Henry Martyn Field, A.B. (Yale Univ.) 1900.

Harry Finkelstein.

Edward James Fitzgibbon.

Alvin Warren Foss, A.B. (Bates Coll.) 1897.

Lester Pierpont Gerrish, A.B. (Bates Coll.) 1896.

James Glass.

Frederick Leo Good.

James Chapman Graves, Jr., A.B. (Amherst Coll.) 1899.

Charles Perley Gray, s.B. (Univ. of Maine) 1900.

Loring Grimes, 2d.

William Perry Hager, s.B. 1900.

Albert William Hancock.

Royal Hatch, A.B. (Dartmouth Coll.) 1900.

Edwards Woodbridge Herman.

Walter Alexis Hosley, A.B. 1900.

George Plummer Howe, A.B. 1900.

Wallace Eugene Hubbard.

Edward Daniel Hurley.

Edward John Hussey, A.B. (Holy Cross Coll.) 1899.

Harry James Inglis.

George Henry Jackson.

Ralph Porter Kent.

Henry Daniel King.

Hamilton Theodore King.

Francis Howard Lahey.

Ralph Everett Lee.

James Prince Lewis, Jr.

Louis Lewis.

Henry Demarest Lloyd, Jr., A.B. 1899.

Henry Nathan Longfellow, PH.G. (Mass. Coll. of Pharmacy) 1890.

Dean Sherwood Luce.

Frederick Louis Lutz.

Ralph William McAllester, A.B. 1900.

Francis Blake McClintock.

John Allen McLean.

Malcolm Sawyer McLellan.

Harold Kenneth Marshall.

Herman Prince Marshall.

Louis Mendelsohn, A.B. 1901.

Harry Carleton Messinger.

Nathaniel Niles Morse, B.L. (Dartmouth Coll.) 1900.

Everard Lawrence Oliver.

Clarence Eugene Ordway, A.B. (Yale Univ.) 1900.

Roscoe Hunter Philbrick.

John Charles Phillips, s.B. 1899.

Walter Gray Phippen, A.B. 1900.

Chandler Robbins, A.B. 1899.

William Bradford Robbins, 1899.

John Conway Rogers, Jr., A.B. (Bowdoin Coll.) 1899.

Mark Homer Rogers, A.B. (Williams Coll.) 1900.

Charles Bradley Russell, s.B. (Illinois Coll.) 1899.

Frederick Ward Seymour.

Malcolm Seymour.

Lee Simon Shoninger, PH.B. (Yale Univ.) 1900.

Louis Mahlon Spear, A.B. (Bowdoin Coll.) 1900.

Max Sturnick.

Charles Brent Sullivan.

John Joseph Sullivan.

Joseph Mariner Thompson.

William Henry Traves, Jr.

Rudolf Henry Wald.

Arthur Joseph White.

Ross Kittredge Whiton, A.B. 1900.

Willard Porter Woodbury, A.B. 1900.

Walter Carleton Woodward, B.L. (Dartmouth Coll.) 1899.

Walter Thomas Woolley, s.B. (Ill. Wesleyan Univ.) 1898.

M. D. cum laude.

Louis Arkin, s.B. 1901. Charles Hume Baldwin, A.B. (Williams Coll.) 1900. William Lester Barnes, A.B. 1900. Lynn Staley Beals, A.B. 1900. Leon Gage Beeley, A.B. 1900. Edward Bridge Bigelow, A.B. (Dartmouth Coll.) 1900. Nelson Henry Clark, s.B. (Antioch Coll.) 1897. Arthur Alden Cushing. Herbert William Ellam. Marshal Fabyan, A.B. 1900. George Benson Fenwick, A.B. 1900. Louis Mark Freedman, A.B. 1901. Samuel Warren Goddard. John Bryant Hartwell, A.B. (Yale Univ.) 1900.

Frederick Clinton Kidner, A.B. 1900. Lucius Collinwood Kingman, A.B. (Yale Univ.) 1900. William George Lee, A.B. 1901. Harry Linenthal, A.B. 1900. Louis Nelson, A.B. 1900. Edwin Hemphill Place. Hugo Bruno Charles Riemer. Patrick Somers Smyth, A.B. (St. Francis Xavier's Coll.) 1896. Clarence Hathorne Staples, A.B. (Wesleyan Univ.) 1900. Sidney Strauss, A.B. 1901. Edward Francis Timmins. Ray Lester Whitney, PH.B. (Brown Univ.) 1900.

John Thomas Williams.

M. D. (As of March, 1904.)

George Edwin Deering. Isidore Stanley Kahn, A.B. 1900. Jacob Sleeper Kelley.

ADMISSION EXAMINATION.

June, 1904.

CHEMISTRY.

Laboratory note-books in Qualitative Analysis, properly endorsed, must be handed in to the Instructor at this examination.

- 1. What is a deliquescent salt; an efflorescent salt?
- 2. What are the properties of

MgSO₄; Na₂HPO₄; AgNO₃; K₄Fe(CN)₆?

- 3. Describe briefly the method employed in Qualitative Analysis for determining the presence of zinc in an unknown solution.
- 4. How determine bromides in the presence of iodides?

EXAMINATION PAPERS.

(Annual Examinations, 1904.)

**

First Year Studies.

ANATOMY. - Professor Dwight.

- 1. What are the parts of a typical vertebra? How many vertebrae are there in each region of the spine? Which are the chief peculiar vertebrae?
 - 2. Descibe the elbow joint.
 - 3. Describe the middle ear.
 - 4. Give a general description of a median section of the male pelvis.
 - 5. Describe the great motor tract of the central nervous system.
 - 6. Describe the course and relations of the oesophagus.

HISTOLOGY. - Professor MINOT.

[Each student is given four sections to correspond with the first four specimens below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

- 1. What is the organ? How is it cut? How is the section stained? Describe the lymphatic structures, and draw them with a low power to show their relations to other parts of the organ.
- 2. Draw with high power and describe the epithelium. From what is the section made?
- 3. What is the organ? What does the section show concerning the pathways of the blood circulation?
- 4. Draw and describe the section of the spinal cord. Compare it with a section of the adult spinal cord.
 - 5. From what germ-layer is the spinal cord developed?
 - 6. What is a sinusoid?
- 7. Where do chromosomes occur? In what kind of cells can they be demonstrated?

PHYSIOLOGY. - Professor W. T. PORTER.

(Answer any three questions, but not more than three. The answer to any one question must not exceed three hundred words. Mention, where possible, experimental evidence in support of your opinion. Matter not bearing directly on the question asked will count against the writer.)

- 1. Discuss the action of lymphagogues.
- 2. Discuss proteid diets and their relation to metabolism.
- 3. State evidence for the segmental concept of the nervous system.
- 4. Give the principal facts regarding inhibition.

PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY. Professors Wood and Hills.

- 1. Describe the tests for glucose in the order of their relative importance. Which of these tests distinguish glucose from other reducing substances which may occur in urine?
 - 2. Give an account of the metabolism of carbohydrates.
- 3. In what respects does the action of trypsin differ from that of pepsin?
 - 4. Give a brief account of the chemistry of muscle.
- 5. Composition of milk? What are the most essential differences between woman's and cow's milk?
- 6. Name the various forms of acid reacting substances which may be present in the contents of the stomach in conditions of health and disease, and outline the method of determining the presence of the forms found in the normal contents.
- 7. Under what conditions may the urine be passed habitually in large quantity and of low sp. gr.?
- 8. What are the characteristics of the urine and sediment during the progress of a case of toxic nephritis?
- 9. Given a quantity of urine averaging 1000 cc. daily and containing constantly a slight trace of albumin, what kidney disease or disturbances may be present, and how distinguish between them?
- 10. Discuss the following specimens of urine, giving reasons for the inferences which may be drawn from them:—

CLORA

Normal color. Very acid. Sp. Gr. = 1017. Considerable sediment.

Uph. = n. $\dot{\overline{U}}$. = 1.26%. Cl. = 0.418%. E. P. = sl. —. Ind. = n. $\dot{\overline{U}}$. Sf. = n. A. P. = —.

Slightest possible trace of albumin. No bile or sugar.

Sediment = Rarely a small hyaline and finely-granular cast. Secondary uric acid crystals.

Amount	of	urine	in		hours	=	1380	cc.
6.6	6.6	urea	4.6	6.6	6.6	=	17.39	grms
4.6	66	uric acid	66	6.6	6.6	=	0.47	6.6
6.6	6.6	chlorine	6.6	6.6	66	=	5.77	6.6
6.6	6.6	phosphoric acid	66	"	4.6	=	1.28	6.6
		uric acid urea				-	$1 \cdot 37$,

11. CASE B.

Pale color. Acid. Sp. Gr. = 1012. Considerable sediment.

Albumin = $\frac{1}{60}$ %. Very slight trace of sugar. No bile.

Sediment = Numerous and large hyaline and granular casts; an occasional waxy cast; numerous granular renal cells.

Amount of urine in 24 hours = 1480 cc. " urea 66 66 = 12.13 grms. 66 66 " uric acid = 0.20766 66 66 66 66 " chlorine = 2.96" phosphoric acid " " = 0.5066 uric acid : urea = 1:58

12. How can an examination of a stained specimen of blood aid in the differential diagnosis between the following conditions: Pneumonia, typhoid, uncinaria, trichinosis, and malaria? What is the difference in the blood pictures of myelogenous and lymphatic leukemia?

PRACTICAL EXAMINATION.

Physiological Chemistry.—1. Test the two solutions provided: (a) for carbohydrates; (b) for enzymes. 2. In the specimen of gastric juice provided: (a) make complete qualitative and quantitative acidimetry; (b) test for enzymes.

Pathological Chemistry.— A complete chemical and microscopic examination of a specimen of pathological urine, and a written report of the inferences to be drawn from the results obtained, was required.

Second Year Studies.

ANATOMY. - Professor Dwight.

- What are the characteristic differences between the first and the last rib?
- 2. Give the shape and the relations of the prostate. What is its structure?
- 3. Describe the thoracic duct.
- 4. What are the chief differences between the right and left lungs?
- What bones does the astragalus articulate with? Describe briefly the articular surfaces.
- 6. Describe briefly the adenoid collections of the mouth and pharynx.

BACTERIOLOGY. — Professor Ernst.

- Diphtheria. Tell what you know of its specific etiology and methods of diagnosis.
- 2. What is the agglutinating reaction in typhoid fever; how is it tested; upon what does it depend?
- 3. What are the various forms of Immunity; upon what is Acquired Immunity supposed to depend?

PATHOLOGY. - Professor Councilman.

Write answers to the first two questions on separate paper.

- 1. What animal parasites can be diagnosed as present in the body by microscopic examination of the stools and of the blood? State what is found in each case and any peculiarities which aid the diagnosis.
- 2. Describe the anatomical characters and the life history of Taenia saginata, the beef tape worm.
- 3. Glioma. Definition? Occurrence? Varieties? Relation to gliosis? Discuss its classification from the embryological and from the histological point of view.
- 4. Describe the gross and microscopic appearance of fat necrosis. Give the present theory of the formation of fat necrosis.
- 5. What different lesions may lead to the formation of scars (depressions) on the surface of the kidney?
- 6. Amyloid liver. Gross appearances? Situation of the amyloid in the liver? Chemical properties of amyloid?
 - 7. Acute peritonitis. What are the commonest sources of origin?
- 8. Thrombi in the heart. Location? Cause of formation? Changes which they undergo? Clinical importance?
- 9. What form of carcinoma is commonly found in the tongue? What form in the colon?
- 10. What organisms are most frequently the cause of acute endocarditis of the mitral valve? Describe process of healing of such a lesion.

MATERIA MEDICA AND THERAPEUTICS.—Asst. Professor Praff.

- 1. Give the general pharmacology of the heavy metals.
- 2. Local and constitutional action of potassium iodide.
- 3. Action, uses, and untoward effects of carbolic acid; of antipyrin.
- 4. General methods of treatment of heart disease.
- 5. Enumerate the different urinary disinfectants and explain their method of action.
 - 6. Pharmacological action of morphine.
- 7. Write prescriptions, avoiding abbreviations, and giving full directions to the patient. (1) ergot; (2) iron; (3) mercury; (4) strychnine sulphate; (5) hydrochloric acid; (6) chloral; (7) atropine sulphate; (8) lead acetate.
 - 8. Action of quinine.

Third Year Studies.

THEORY AND PRACTICE. - Professor Fitz.

- 1. The value in medical practice of the examination of fresh blood.
- The diagnosis and treatment of remediable varieties of pernicious anaemia.
- 3. The relation between myxoedema and cretinism.
- 4. The characteristics and treatment of intestinal hemorrhage in typhoid fever.
- 5. The significance of multiple neuroses.
- 6. Enumerate the cardiac affections likely to cause sudden death.
- 7. The differential diagnosis of congestions of the lungs.
- 8. Treatment of gastric atony.
- The comparative merits of the medical and surgical treatment of cancer of the intestine above the rectum.
- 10. The treatment of renal haematuria.

PEDIATRICS. - Professor ROTCH.

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case, giving the differential diagnosis and treatment:—

A girl, six years old, began to have a cough about the 7th of November. The family history was not tubercular, but all her relatives were subject to bronchitis. She had had no known exposure to tuberculosis. Her doctor was not called until November 16. He then found a pneumonia of the left lower lobe. She was not very sick, but was a bad patient, taking her food and treatment very poorly. The temperature did not fall, but continued elevated, varying between 99° F. and 100° F. in the morning and 101° F. and 103° F. in the afternoon. She had no chills and no sweating. There was a good deal of cough with purulent expectoration, sometimes streaked with blood. She vomited occasionally. The bowels were constipated, but the movements were well digested. She lost flesh and strength rapidly. Dyspnoea was troublesome at first, but later ceased. She was unable to sit up on account of weakness. She was seen in consultation December 30.

Physical Examination. She was well developed, but poorly nourished. The skin was dry. Pallor was marked. The tongue was nearly clean. There was no rosary, but considerable flaring of the lower ribs. The upper and left borders of the cardiac dulness were not determined because of the flatness in the left chest. The right border of dulness was 1 cm. to the left of the right nipple. The action of the heart was regular. The sounds were strong, being loudest under the sternum and somewhat louder to the right of the sternum than to the left. The second sound at the pulmonic area was the louder. Both chests moved alike and the level of the intercostal spaces was the same on both sides. There was hyperresonance and exaggerated respiration throughout the whole right chest. There

was flatness over the whole left chest, extending downward in front to the seventh rib; below this there was tympany. In the lower left back the flatness was mixed with tympany. There was a very marked sense of resistance over the whole left chest. Respiration was everywhere bronchial in character and increased in intensity, except in the lower back. The voice sounds varied as did the respiration. No fremitus was obtained on either side. No râles were heard. The abdomen was rather full and apparently slightly tender. There was no evidence of fluid. There was no muscular spasm. The lower border of the liver was palpable 2 cm. below the costal border. The spleen was not palpable; the area was not determined. The extremities were normal. There was no oedema.

- 2. Give the symptoms, diagnosis, and treatment of a case of cyclic vomiting.
 - 3. Give the treatment of a case of ileo-colitis in an infant 18 months old.
- 4. What is the significance of a nasal voice during convalescence in a case of diphtheria?
- 5. A boy at birth weighed $7\frac{1}{2}$ pounds; at six months he weighed 12 pounds. There are no symptoms of gastric or intestinal disturbance or of any disease, but he is fretful during the day and restless at night. His appetite is good, and his mother thinks that he does not fret so much and is better satisfied when fed at two-hour than at longer intervals. The mother has been giving him a mixture containing fat 3%, sugar 6%, proteids 1%, lime-water 5%, eight feedings in the 24 hours, amount at each feeding 5—4, intervals of feeding two hours. What would you tell the mother (1) as to the degree of development he has attained; (2) as to the cause of the symptoms, and (3) as to the best management of the case? Write your prescription to the milk laboratory.
- 6. Give the differential diagnosis of the appearance in the mouth and throat in scarlet fever and measles.

SURGERY. - Professor WARREN.

- 1. What are the advantages, disadvantages, and the comparative clinical germicidal value of the following antiseptics: Corrosive sublimate, carbolic acid, permanganate of potash and oxalic acid, and alcohol?
 - 2. Give the symptoms and treatment of hemorrhage.
- 3. In using chloroform as an anesthetic, what are the "danger signals"?
- 4. Give the time when provisional and when complete union occurs in the following fractures: Radius (Colles'), middle of the shaft of femur, fracture of a metatarsal bone.
- 5. Give the symptoms, prognosis, and treatment of intestinal obstruction from an "adhesion band."
- 6. Give the symptoms and prognosis of the forms of peritonitis that may be due to perforation of the hollow viscera.
 - 7. Give the symptoms, prognosis, and treatment of acute pancreatitis.
 - 8. Give the differential diagnosis of a tumor in Scarpa's triangle.
 - 9. What are the indications and contraindications for trephining?
- 10. Give the diagnosis, prognosis, and treatment of carcinoma in the female breast.

OBSTETRICS. - Professor W. L. RICHARDSON.

- 1. What are the characteristic differences between the justo-minor and the simple flat pelvis?
- 2. What significance should be attached to a moderate degree of flowing in the first six months of pregnancy?
- 3. Describe the symptoms and treatment of a threatening abortion. How would you determine that an abortion was becoming inevitable? Give the treatment of such.
- 4. Mention some of the simple, remediable conditions which may cause delay in a case of labor and state what you would do to relieve them.
- 5. A primipara, after a labor of thirty-six hours, delivers herself of a baby weighing nine pounds. A caput succedaneum is found over the anterior, superior angle of the left parietal bone. What was the position of the head when the caput was formed?
- 6. Describe in detail the manner in which you would conduct the third stage of labor.
- 7. A ivpara has been in labor five hours. The os is two-thirds dilated; the breech presents; uterine contractions strong; progress slow; maternal condition good; foetal heart 160. Treatment?
- 8. The varieties, causes, and symptoms of placenta praevia. The treatment of a case of complete placenta praevia.
- 9. A primigravida, seen for the first time when in the fifth month, is found to have oedema of the face, vulva, and legs; for three weeks there has been considerable headache, and occasional mild attacks of pain in the epigastrium; there has been nausea, but no vomiting. The eyesight is considerably impaired; there is found to be retinitis, with a partial separation of the retina of one eye. The urine is scanty, contains renal elements, 2% of albumin, and a much diminished percentage of urea. Diagnosis, prognosis, and treatment?
- 10. Aside from infection of the paturient canal or breast, what are some of the causes of fever in the puerperium?

GYNAECOLOGY. - Asst. Professor DAVENPORT.

- 1. Describe in detail the method of bimanual examination.
- 2. A patient on examination is found to have a retroverted uterus, other pelvic conditions apparently normal. How would you determine the question whether there were adhesions or not?
- 3. What would be your treatment, (a) if the uterus is movable? (b) if adhesions are present?
 - 4. What is cystocele and how should it be treated?
- 5. What are the indications for curetting the uterus? Describe the operation.

DERMATOLOGY .- Asst. Professor Bowen.

- 1. Psoriasis.
- 2. Tinea versicolor.
- 3. Lupus vulgaris.
- 4. Varieties of alopecia.
- 5. Treatment of scabies.

NEUROLOGY. - Professor PUTNAM.

- 1. A middle aged man, a painter by trade, of alcoholic habits and a syphilitic history, awoke one morning with his right hand feeling prickly and uncomfortable, and found himself unable to extend the fingers or carpus. When seen, two weeks later, the electrical reactions were found to be normal, but careful tests showed slight blunting of the sensibility over certain areas of the hand and forearm. Give the diagnosis, and state where, in your opinion, the areas of impaired sensibility were situated. A long discussion of the case is not desired, but only brief statements.
- 2. Give the most characteristic features of the headache due, (a) to syphilis, (b) to brain tumor, (c) to neurasthenia.

3. Discuss the following case quite fully, taking up the prominent signs and symptoms in turn and stating to what pathological conditions they severally point. State any questions that occur to you, an answer to

which might throw real light on the diagnosis.

A girl of eleven, of good previous health, except that for two or three weeks she had felt tired and poorly, was seized, on August 4, with headache and vomiting, and was then found to have a temperature of 105° f. During the next three days she seemed to be improving; the temperature dropped to 102° f. (morning and evening) and then fell to normal and did not again rise. Towards the end of the third day, however, her feet became "numb," and the legs and arms felt weak and heavy, and these symptoms grew steadily worse so by the next day she could no longer use the legs at all. During this period she suffered from pain referred to the thighs. The bowels had been obstinately constipated the first three days of her illness, but the paralysis of the legs was followed by incontinence of urine and faeces, which, however, lasted only a relatively short time.

On physical examination, which was made eight days after the onset of the illness, the pupils were found to be equal and responsive to light, the tongue much coated, but not deviating on protrusion, and the facial expression normal. The grasp of both hands was feeble, and the left arm could not be raised at the shoulder, though flexion at the elbow was normal. The right arm could be raised at both shoulder and elbow, though not with full strength. There was no noticeable contraction of the intercostal muscles even on forced inspiration, the breathing being entirely diaphragmatic and abdominal. Although the patient was unable to move either leg at the larger joints she could make slight movements of the toes and of the feet at the ankle. The sensibility, for light contact, and pricking, and to heat and cold, was everywhere normal. The kneejerks, ankle-, and wrist-jerks were absent; and likewise the epigastric,

plantar, and umbilical reflexes. The pulse rate was 120, the temperature normal. Electrical tests showed the presence of slight degrees of R. D. of the most affected muscles.

The subsequent history of the case was one of improvement, but not of complete recovery.

PSYCHIATRY. - Dr. Cowles.

- 1. Describe the attention in its different forms and some of its disorders.
- 2. Describe a "dissociated idea-system," and mention some cases in which it occurs.
 - 3. What are the characteristic symptoms of "Confusional Insanity?"
- 4. Case. A youth; age 17; student; heredity good, except that his mother has three attacks of depression or excitement. Shy and reticent, but considered natural, and did well in school until five months before admission to hospital when he began to lose interest and said the other boys teased him. Two months later refused to go on a vacation trip with cousin, fearing harm from him; a little suspicious generally. Then began to say he felt weak and rundown; sent to country; sight of a pistol made him afraid of being killed; suspicious; feared poison in his food; thought his family persecuted him; made several attempts at suicide and said he was losing his mind. Sent to Danvers Hospital two weeks before admission to McLean Hospital; said to have shown little interest in surroundings and appeared apathetic, but was clear, coherent, and oriented.

Committed to McLean Hospital, September, 1903. Fairly nourished: physical examination negative, except pulse 56, rather weak and irregular: does not occupy himself, says little and appeared not depressed, but indifferent; answers to questions careless and difficult to get, but generally accurate; told of his suspicions, but could give no reasons, except that he felt depressed and thought he would rather kill himself than be killed by others; this was said without emotion; calculates fairly well. In November less clear mentally, and more silent, but sometimes bursts out laughing; said he did not know anything; one day seized a bowling pin and struck another patient, - said he had nothing against the man, but "did it on impulse, - some one told me to do it." Showed no concern about it. December worse; stands or walks about grunting, and sometimes crawling on the floor, - said he was an animal. Sometimes untidy; has weak and absurd delusions, -his father was a Jew, -he saw Buffalo Bill in the garden, etc.; sometimes smiling without apparent reason; probably hallucinations of hearing; says the red men fill his mind with nonsense, -"ideas come all of a sudden - they tried to mesmerize me;" "an evil influence" puts ideas in his head; asked if he felt comfortable, answered "Yes." Later, somewhat clearer, knows time and place, but continues passive, amiable, apathetic, talks more freely, but, as before, gives weak explanations of his absurd ideas. Not depressed nor excited.

Give diagnosis and prognosis, pointing out the characteristic symptoms.

Fourth Year Studies.

CLINICAL MEDICINE. - Professor SHATTUCK.

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive though correct diagnosis. Write out all prescriptions in full.]

Case 1. - A merchant, aged 35, is seen March 30. His maternal grandfather died insane, family history otherwise negative. Has never been very rugged. Last summer had a cough which persisted until he went to the mountains on the advice of his physician. Lately has felt rather better than usual. On the evening of March 28 attended an elaborate dinner. Shortly after returning home about midnight had a chill and began to vomit, lobster, asparagus and mushrooms being noted in the vomitus. On the morning of the 29th he complained of nausea and of violent general headache. Temp. 101°, pulse 96. Toward noon he began to grow stupid and within an hour could not be roused. The respiration became rhythmical with occasional intervals of apnoea lasting twenty-five seconds. The pulse also was rhythmical, varying from 38 to 108 as extreme limits, the lower rate corresponding to the periods of apnoea. On the morning of the 30th he had regained consciousness, but was still Headache much better. Temp. normal, pulse and respiration showed a hardly noticeable rhythm. Vomiting had not occurred since 11 o'clock the preceding day. He remained dull, but could be roused to take interest in his surroundings. Is constantly tossing about the bed. At 5 o'clock in the afternoon, when making his afternoon visit, his physician noticed that he was absolutely deaf. Examination of ears negative. He replied intelligently but slowly to written questions, but appeared to have some difficulty in seeing them. For the past 24 hours he has required catheterization. Temp. 98°, pulse 72, resp. 24.

Physical examination shows a pale, but fairly well nourished man. Pupils contracted and unresponsive to light. Head moves freely except forward, in which direction motion seems slightly restricted. Examination of chest and abdomen negative except for a slight systolic murmur over the pulmonic area. Knee jerks lively, but equal. No Babinski, no ankle clonus. Patient apparently has full control of all his muscles. White cells 16,000. Urine high-colored, sp. gr. 1024, acid, very slight trace of albumen, few hyaline and fine granular casts, no sugar. Amount

in past 24 hours, 32 oz.

Diagnosis? Prognosis? Treatment?

Case 2.—A cigarmaker, 51 years of age, is seen March 15. Family history negative. Thirty-five years ago had tuberculosis of the knee, which recovered after operation, but left a stiff joint. Eighteen years ago had jaundice. Syphilis fifteen years ago, otherwise always well. Has used beer to excess.

About six weeks ago, while in his usual health, he had an attack of acute bronchitis for which he was given iodide of potassium. This he says upset his stomach and caused vomiting which lasted for a number of days. About two weeks after his cough began he noticed that his skin had a yellow tint which has been progressively growing deeper. Coinci-

dent with the jaundice a circumscribed reddish eruption appeared on various parts of his body and limbs which was diagnosed by his attending physician as erythema multiforme. Itching has been general and intense. There has been no vomiting for over two weeks, but his food has been carefully regulated. His appetite is poor. He has lost much in strength and flesh. His temperature has remained near the normal line, but has occasionally risen to 100° F., particularly during the last week. The pulse has varied between 70 and 80, with rising tendency. The stools are clay colored.

Patient still preserves considerable fat tissue, but has evidently lost weight. Looks sick. Deep icterus of a decidedly greenish tinge. Heart and lungs normal. The liver dulness begins at the sixth rib. Its lower edge, which appears to be smooth, can be felt about an inch below the costal margin. A fluctuating tumor of indefinite outline and size is suspected below the hepatic edge about in the mamillary line. Percussion over it shows an area of dulness about two inches in diameter. Deep palpation of abdomen reveals no other abnormality. No glandular enlargement, no characteristic scars. Urine contains much bile, but no other abnormal constituents. White cells, 8,000.

Diagnosis? Prognosis? Treatment?

Case 3.— A business man, 58, married, of large frame, comes from Canada for advice. Family history and habits good. About twenty-five years ago he had a severe rheumatic fever, disabling him for several months. Ever since then his pulse has been more or less irregular; but he has suffered no inconvenience until about two years ago when he noticed that walking up the hill to his house caused some dyspnoea. Since then there has been failure in strength and loss of weight, upwards of fifty pounds. For the past three or four months he has been able to do very little, has driven to his business for an hour a day and back, and been unable to sleep an account of dyspnoea and pain in the right side of the abdomen. Appetite has been poor and digestion impaired.

Pulse irregular, intermittent, rapid, not corresponding with the heart

beat. Respiration easy when quiet, temperature 98.6.

Complexion sallow, slightly yellow, with yellowish tinge to sclerotics. No cyanosis. Tongue heavily coated. Moderate soft oedema of lower legs. Lungs clear. Cardiac apex not defined to eye or touch. Percussion shows decided increase in the transverse diameter of the heart, the action of which is so rapid and irregular in force and rhythm that only a doubtful systolic apex murmur can be heard. The second sounds are clear, the pulmonic not specially accented.

The belly is flabby, the navel not flushed. Percussion dulness shifts with changing position. No fluctuation wave. Several inches below and following the right costal border and across the epigastrium a solid body, tender, with a firm edge descending with inspiration, is distinctly felt.

The urine, normal in amount, specific gravity 1028, contains a large trace of albumin, 2% of sugar, 1.26% urea, no bile, acetone or diacetic acid. Sediment, a few normal blood globules, a rare hyaline cast.

Diagnosis? Prognosis? Treatment?

CLINICAL SURGERY. - Professor M. H. RICHARDSON.

Case 1.— The patient, a boy of six, presents the following history:—
One year ago he had pneumonia followed by empyema. The empyema

was drained, with complete recovery.

One week ago he was seized with pain in the middle of the abdomen. Vomiting followed immediately the onset of pain. Nothing unusual had been eaten. The pain continued to be general until three days ago, when it grew suddenly worse and became localized in the right lower quadrant of the abdomen. He began then to vomit, and has continued to vomit ever since. The pain from the right lower quadrant has spread all over the abdomen. The bowels have moved every day since the attack. At the present time there is no pain. There never has been anything like this before.

The family history is good.

Physical Examination. A well-developed and well-nourished boy, pretenaturally intelligent, watchful, and apprehensive. Face pale, except for cheeks flushed about the eyes, which are hollow and sunken. Examination of the chest is negative. There is a good scar remaining from the operation for empyema. The abdomen is flat, but everywhere rigid. There is extreme tenderness all over the abdomen, but exquisite over the right iliac fossa. Temperature 102°; pulse 150 and thready; white count 40,000. No tumor or swelling can be detected in the right iliac fossa. There is no dulness there. The urine is negative.

Discuss the diagnosis, the prognosis, and the treatment.

Case 2.—The patient is a woman 50 years of age, unmarried, manager of a hat business. Three or four years ago she noticed what seemed to be a lump in her right breast. This lump, however, disappeared, and was not felt again until last May. She then noticed again the lump in the right breast. During the past summer—the summer of 1903—she used to have pain starting from the breast and shooting into the hand. Then a small red spot appeared on the breast. She has not passed the menopause. With every menstruation the pain would be somewhat increased. From time to time this patient consulted her physician, who told her that the bunch seemed to be growing smaller. During the past winter, she says, the lump went away entirely, and could not be felt for a couple of months. There has been no injury to the breast; but it feels to the patient as if there were some heat in it. No cough; no shortness of breath.

The patient comes of very healthy stock. In uncles, aunts, brothers, sisters, father, and mother there have been no cases of cancer, of tuber-

culosis, or of any constitutional or hereditary disease.

Physical Examination. On inspection the right breast is larger than the left. A lump can be seen at the upper and outer quadrant of the breast toward the axilla. The skin over the breast is somewhat reddened, and the reddened place is hard to the touch, flattened, and somewhat elevated. Underneath this spot a distinct, somewhat irregular mass can be felt, filling the greater part of the affected quadrant. The skin is not broken. In the axilla can be felt a chain of glands extending from the margin of the breast as far as the finger can reach. Nothing abnormal can be felt above the clavicle. The heart and lungs are normal. Urine, specific gravity 1010; slightly acid; no albumen; no sugar. Examina-

tion of the abdomen shows no ascites, no tumor, no evidence of metastases. There is no swelling of the arm or hand.

Discuss in this case the diagnosis, the treatment, and the prognosis.

Case 3.—A man, aged 29, by occupation a laborer, two months ago fell ten feet and struck on his left shoulder. The fall was followed by great pain in the shoulder, with swelling. The swelling extended down the entire arm. The swelling gradually disappeared, and at the end of three or four weeks he began to use his arm.

There is now no pain; but the shoulder feels stiff, and the motion of it is limited. The pain in the beginning was chiefly in the shoulder, but it extended down the arm. It did not correspond with the course of any

special nerves.

The family history is negative.

Physical Examination. Heart and lungs are negative. The arm cannot be raised to a horizontal position; nor can the hand be placed upon the head or upon the opposite shoulder. The patient can push and pull with considerable force. Under the left acromion there is a depression, — not only a flattening of the deltoid, but a distinct depression. The elbow cannot be brought to the side. On rotation of the humerus the head of the bone cannot be felt in the glenoid cavity or in the axilla, but rather toward and under the coracoid process. The urine is negative.

What is the diagnosis, the treatment, and the prognosis?

ORTHOPEDIC SURGERY. - Professor Bradford.

- Mention five of the most important symptoms in the early stage of caries of the spine, fifth to eighth dorsal vertebrae.
- 2. How is a diagnosis made in early hip disease?
- 3. Describe knock knee and give the cause.
- 4. Describe the deformities in the late stage of tumor albus.
- 5. Describe the appearances in a light case of lateral curvature.
- ${\bf 6.}\ \ {\bf Describe\ congenital\ torticollis.}$
- 7. Give the symptoms of flat foot.
- 8. Describe a leg afflicted with infantile paralysis.
- 9. What are the essential principles of the local treatment of osteo arthritis?
- Describe the characteristics of two of the types of the nontubercular joint diseases.

SYPHILIS. - Dr. Post.

- 1. What is syphilis?
- 2. Describe the so-called mucous patches of the skin.
- 3. Describe the common lesions of the palms.
- 4. Describe the gross characteristics of the more common affections of the bones.
- 5. What do you understand by the therapeutic test and what is its value?

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. Iritis. Etiology, clinical history and treatment.
- 2. Name the common mydriatics and myotics.
- 3. Describe the field of vision in (1) glaucoma, (2) tobacco amblyopia.
- 4. Senile cataract. Clinical history and methods of diagnosis.
- 5. Give a history and description of ocular headaches such as would be related by a man 30 years of age who had never worn any correction for his refractive errors.

OTOLOGY. - Professors Blake and J. O. GREEN.

- 1. Give the location of the mastoid antrum. How would you reach it in performing the simple mastoid operation?
- 2. What is the relation of
 - (a) the lateral sinus to the mastoid?
 - (b) the facial nerve to the antrum?
- 3. What is the effect, upon the Eustachian tube, of contraction of the levator and tensor palati muscles?
- 4. What is the effect, upon the hearing, of a paralysis of the stapedius muscle?
- 5. Give the pathology, only, of acute suppuration of the tympanum.
- 6. Give the treatment of chronic suppuration of the tympanum.
- 7. Describe the appearance of the drum-head in an otitis media acuta.
- 8. Give the treatment of an acute secretory catarrh of the middle-ear.

LARYNGOLOGY. - Dr. FARLOW.

- 1. What are the functions of the nose?
- 2. A child, 8 years old, pale and undersized, is brought to the physician on account of open mouth, especially at night. The nose is small, narrow, and turns down at the tip. The inferior turbinates are pale, large, and touch the floor of the nose and the septum. The middle turbinates are not easily seen, but are somewhat enlarged. The upper incisors project beyond the lower, the palate is narrow and rather high. The tonsils are about normal in size. The pharynx and naso-pharynx have a number of slightly enlarged, red follicles, and at the vault, as well as in the nose, there is considerable yellow secretion.

Discuss the nature of the conditions found and give the treatment.

3. Mr. A., 42 years of age, complains of frequent nosebleed from the left nostril, especially on blowing the nose. He says his general health is good enough. He smokes many cigarettes and drinks several cocktails a day.

The nasal septum deviates to the left, and there is a small, irregular spur which narrows the nostril to a certain extent. Just in front of the spur, on the cartilaginous septum, is a small erosion with a thin coating

of blood. The nasal mucous membrane in general is dry and dull red, and there is considerable tenacious mucous on the posterior pharyngeal wall.

Diagnosis and treatment.

- 4. What are the different ways of removing or diminishing the size of large or diseased tonsils? Under what conditions would you use each of these methods?
- 5. What laryngeal appearances would make you suspect laryngeal tuberculosis in an early stage? In later stages what appearances are nearly pathognomic? Diagram.
- 6. In attempted phonation, the vocal cords of Mrs. A. are seen to remain in abduction.

When Mrs. B. attempts to speak, the left cord remains nearly in the median line, in the same position in which it was in respiration. The right cord, from its position in abduction, crosses over the median line and touches the left cord.

What are the vocal symptoms in the two cases? What is the cause of the larvngeal appearances (1) in Mrs. A., (2) in Mrs. B.?

LEGAL MEDICINE. - Dr. E. W. DWIGHT.

- 1. What are the general principles of law as to the disposition, mutilation, and ownership of dead bodies?
- 2. How can one distinguish between gunshot and other wounds?
- 3. Describe the most common forms of dynamic asphyxia.
- 4. What are the most common causes of natural death in the newborn?
- 5. When would a practitioner of medicine be held guilty of malpractice?

HYGIENE. - Asst. Professor Harrington.

- 1. Causes, effects, and prevention of bacterial richness of milk.
- 2. Relation of over-crowding to tuberculosis. How is the disease believed to be transmitted in confined spaces? How can the probable truth of the theory be demonstrated?
- 3. What are the supposed causes of the apparently irreducible minimum of typhoid fever incidence in communities that are supplied with pure water? Possibility of transmission by ice.
- 4. What is meant by "natural increase" and "actual increase" in population? To what causes is the progressive decrease in the native birth-rate ascribed? How are birth-rates, marriage-rates, and death-rates calculated?
- 5. Compare the disinfectant properties of carbolic acid 1:40, creolin 1:20, corrosive sublimate 1:1000, and saturated solution of potassium permanganate.
- 6. State the approximate value in calories of a kilogram of average cheese; milk; potatoes; cane sugar.

Electives.

ANATOMY. - Dr. WARREN.

Describe briefly the structures and their relations found in the dissection of :—

- 1. The axilla.
- 2. The ischio-rectal fossa.
- 3. The popliteal space.

CLINICAL MICROSCOPY. - Dr. WHITNEY.

- Describe the structure of cancers. Illustrate by the different types found in the breast.
- Changes in the uterus during pregnancy, that can be recognized microscopically.
- The differential diagnosis between cysts of the ovary and broad ligament.
- 4. Diagnosis of a specimen.

OPERATIVE SURGERY .- Professor M. H. RICHARDSON.

- 1. Ligature of the common carotid artery.
- 2. Intestinal suture.
- 3. Removal of the breast and axillary contents.
- 4. Excision of the elbow.
- 5. Operation for strangulated inguinal hernia in the male.
- 6. How would you incise the abdominal wall in operations on
 - (a) the gall-bladder;
 - (b) the appendix;
 - (c) the middle pelvis?

ORTHOPEDIC SURGERY. — Professor Bradford.

- 1. Give the characteristic symptoms in caries of the spine.
- Give the prognosis of caries of the spine with and without treatment.
- Describe the apparatus used in the treatment of caries of the spine in the lumbar, mid dorsal, and cervical regions.
- 4. Describe the operations used in congenital club foot.
- 5. What is the prognosis and treatment in club foot?
- 6. Describe the method of operation in knock knee and bow legs.
- 7. Describe the apparatus used in bow legs and knock knee.
- 8. Describe the apparatus used in the treatment of the different stages of hip disease.
- 9. What operative measures are to be used in tuberculosis of the knee?
- Describe the methods of treatment, both operative and non-operative, to be used in the treatment of cerebral and spinal paralysis.

OPERATIVE OBSTETRICS. - Asst. Professor C. M. GREEN.

1. In all low forceps work, why is the left blade applied first?

What is the general rule as to the direction of forceps traction, wherever the head may be in the pelvis?

At what period in the delivery should the forceps be removed?

What precaution is necessary in removing the forceps?

2. In performing internal podalic version, when is the preferable time to rupture the membranes? Which foot should be brought down? Why is it better not to bring down both feet?

In the manual extraction of a breech, when should the back of the foctus be turned to the pubic arch? When should the arms be delivered? What is the technique of bringing down the arms? What precautions must be exercised?

- 3. A primipara, seen early in labor, is found to have the following pelvic measurements: inter-spinous, 23 cm.; inter-cristal, 25 cm.; external conjugate, 18 cm. The head presents, O.L.A., and is not engaged. The foctus is estimated to weigh eight pounds. After two hours of second-stage labor, the head is found to be engaged, well flexed, in the superior strait, the os uteri fully dilatable, the membranes unruptured, the foetal heart sounds normal; the woman is becoming tired, but is in fairly good condition. Describe your treatment from this time, and outline any operation you may perform.
- 4. A quadrigravida, seen ten days before the expected date of labor, has the following history: her first child was lost in a difficult high forceps delivery; her second, in a breech extraction; the third child was successfully delivered by induced labor at seven and a half months, but lived only a few days. Pelvimetry shows a justo-minor pelvis with a true conjugate at the brim of 3.2 inches; the foetus is estimated to weigh eight pounds; the parents are desirous of having a living child. Discuss your treatment of the case, and outline any operation you may perform.

GYNAECOLOGY. - Asst. Professor C. M. GREEN.

(As far as possible, illustrate your work with diagrams.)

- 1. Describe an approved operation for the repair of a perineum ruptured through the sphincter ani, and give the post-operative treatment.
 - 2. In an operation for the closure of a vesico-vaginal fistula,
 - (a) What is the most satisfactory position of the patient?

(b) Describe the denudation.

- (c) What is the best suture material?
- (d) At what distance from each other should the sutures be placed?
- (e) What means should be adopted during convalescence to prevent undue tension on the sutures?
- 3. When there is considerable venous oozing from the broad ligament and pelpic peritoneum after the separation of adhesions in the removal of a tubo-ovarian mass, how would you proceed?
- 4. When there is no occasion for haste, what should be the general and local preparation of a patient for an abdominal operation?

5. In the operation of supra-vaginal hysterectomy with removal of the appendages, what vessels is it necessary to ligature? How would you seek to avoid ligature of the ureter? Describe the peritoneal toilet after this operation.

DERMATOLOGY. - Dr. WHITE.

1. A little child is brought to the hospital by a mother who speaks only Armenian. The child is two years old and has on her left arm an area of brilliant erythema, extending up and down for about three inches from the bend of the elbow. The upper border of the pinkish surface is irregular in shape, while the lower is as straight as though outlined by a ruler. Everywhere the line of demarcation between healthy and abnormal skin is very sharply drawn. In the centre of this affected region are two large bullae which have the diameters of hens' eggs, rise abruptly from the skin and are filled with turbulent serum.

What is the diagnosis and what is the treatment?

- 2. Give as fully as possible the clinical appearances of vitiligo and the treatment of an extensively distributed case.
- 3. A young man, perhaps twenty-five years of age, consults a physician on account of the cutaneous changes in his nose. He says that three months ago he noticed that his nose bled frequently and became so stopped up that he had difficulty in breathing. For these symptoms he received treatment from a local physician.

A few weeks afterwards, the patient found two "pimples" on his nose, one near the tip and the other on one of the alae. These lesions apparently grew in extent, but the man does not know whether others developed or whether the whole process extended from these original "pimples."

At present the whole cartilaginous part of the nose, from one side of the cheek to the other, and from the junction of the septum nasi and the lip up to the boundary on the bridge between cartilage and bone, is uniformly affected. The color is dark red. The nose is slightly enlarged, the skin rather elastic, tense and oedematous—not hard and not soft. The surface is covered with fine, rather adherent and scattered elements which resemble scales rather than crusts; but it would be difficult to say which were really present. The outline of the diseased tissue is fairly sharply defined, but contains no isolated lesions and is quite uniform. However, near the border on the right ala there is a very soft spot, yellower in hue than the adjacent tissue and about the size of a pea. In one other part of the diseased area there is a suggestion of a similar nodule. These lesions seem to be deeply seated and do not rise much above the level of the skin. There is no ulceration anywhere.

Give as full a differential diagnosis as possible and discuss the various

methods of treatment.

4. Write a good description of the clinical appearances of dermatitis herpetiformis.

5. A young man, who travels about a good deal, shows a rather general eruption on his body and complains a great deal of the itching accompanying this outbreak.

The eruption has been present for about six weeks and consists of fine papules, exceriated [and often capped by a tiny bloody crust] and scat-

tered discretely over the trunk, and to a lesser extent on the fronts of the upper arms and thighs. On the top of the glans penis there is a very superficial ulceration with crusting periphery, but no inguinal glands are to be felt. Between the fingers there are one or two small pustules.

State fully the differential diagnosis and give a detailed description of

the treatment.

NEUROLOGY. - Dr. WALTON.

- 1. How does syphilis attack the nervous system?
- 2. Varieties of headache and their pathogenesis?
- 3. Epilepsy diagnosis (mentioning characteristic symptoms in order of importance) and treatment.
 - 4. Diagnosis, prognosis, and treatment of anterior poliomyelitis.
- 5. Discuss the symptoms, give the differential diagnosis, prognosis, and treatment of the following case:—

A man of thirty-five has an ataxic gait characteristic of tabes, and has loss of muscle sense with slight impairment of pain, touch and temperature senses in both feet, not limited to the distribution of any nerve or of any spinal segment. He states that the onset of these symptoms was gradual, beginning about 1½ years ago, that one year ago he was confined to bed for 13 weeks with weakness, frequent vomiting, headache, and epigastric pain. At that time there were also sharp pains in the legs, varying in location and followed by soreness. These symptoms had come on gradually during the preceding months. Since getting up he first had ataxia and numbness and has neither become better nor worse. He has had no recurrence of vomiting and headache and the pains have practically disappeared.

Examination to-day shows absence of the knee-jerk and Achilles reflex, normal pupils and fundus oculi. There has been no bladder disturbance at any time. He denies venereal history. He chewed constantly and smoked frequently prior to going to bed, but had left off the chewing shortly before. He formerly drank, he states moderately, but during his stay in bed he sometimes would drink a pint of whiskey in the day. He

now uses no alcohol, but smokes several cigars a day.

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. Describe the variations in the pigmentation of the normal fundus oculi.
 - 2. A boy, fifteen years of age, has two dioptrics of hypermetropia.
 - (a) How would you determine and record the acuity of vision?
- (b) What would probably be his vision for distance without a correcting lens? Give reasons.
- (c) In a retinoscopic examination of his eyes with a plane mirror at the distance of one meter what would be the phenomena observed?
- 3. Give a differential diagnosis between acute catarrhal conjunctivitis, glaucoma, and iritis.
 - 4. Describe the common operations for the extraction of senile cataract.
- 5. Give the clinical history, diagnosis, and treatment of a case of sympathetic ophthalmitis.

OTOLOGY. - Professors Blake and J. O. Green.

- 1. Describe the drum-membrane
- 2. Give the indications for removal of the ossicles.
- 3. What is the effect upon the hearing, in the normal ear, of voluntary contraction of the tensor tympani muscle.
- Why does the act of swallowing favor inflation of the middle ear by means of the Politzer air bag.
- 5. Give the differential diagnosis of acute suppuration of the tympanum from acute secretory catarrh of the tympanum.
- 6. Give the pathology and treatment, in full, of acute suppuration of the tympanum, without complications.
- 7. In what portion of the drum-head is a rupture, from concussion, most likely to occur, and why?
- 8. What is the so-called Menieres disease and what are its symptoms?

THE MEDICAL SCHOOL.

Courses for Graduates.

1003-04.*

Anthony, Francis Wayland, A.B. 1879, M.D. 1888, Haverhill. Bailey, Walter Channing, A.B. 1894, M.D. 1898, Boston. Ball, Charles Riggs, A.B. (Ohio Wesleyan Univ.) 1891, M.D. (Univ. of Minnesota) 1894, Barnes, Allan Foster, A.B. 1898, M.D. 1902, Brainerd, Walter Scott, M.D. (Univ. of Vermont) 1883, Malden. Carsan, Paul, s.B. (Dartmouth Coll.) 1891, M.D. Deer Island. (ibid.) 1894, Carter, Laura, M.D. (Laura Memorial Med. Coll.) 1902, Clark, Caleb Wakefield, M.D. (Univ. of Vermont) 1889. Melrose. Cutler, Alice Surry, M.D. (Boston Univ. Med. Sch.) 1902, De Amezaga, Gualterius, M.D. (Univ. of Genoa) 1889, Boston. Dewis, John William, M.D. 1894, Boston. Evans, John Harry, B.A.S. (Connecticut State Agric. Coll.) 1896, M.D. (Columbia Univ.) 1902, Fiske, Charles Norman, M.D. 1900, Fleming, Peter Joseph, M.D. (Western Univ. of Ontario) 1902, Roxbury. Gavin, Patrick Freebern, M.D. 1870,

Graham, George Sellers, B.L. (Dartmouth Coll.)

Henderson, Robert James, M.D. (Jefferson Med.

Hills, Charles Everett, M.D. (Dartmouth Coll.)

1902.

1901,

Coll.) 1892,

St. Paul, Minn. Cambridge.

Shelbyville, Ind.

No. Woburn.

Norwich, Conn. Washington, D. C.

So. Boston.

Exerett.

Worcester.

So. Natick.

^{*} Entering after the issue of the Catalogue of 1903-04.

Jones, Claude Perry, M.D. 1893,

Kelly, William Dugan, M.D. 1903,

Kimpton, Arthur Ronald (Dartmouth Med. Sch. Senior),

Loftus, John Thomas, PH.G. (Massachusetts Coll. of Pharm.) 1898, M.D. 1903,

Marcley, Walter John, M.D. (Boston Univ. Med. Sch.) 1895, M.D. (Dartmouth Coll.) 1902,

Miles, George Albert, M.D. (Long Island Coll. Hosp.) 1891,

O'Brien, John Francis, M.D. 1892,

O'Donnell, Louis Patrick, M.D. 1893, .

Ohnesorg, Karl, M.D. (*Univ. of Pennsylvania*) 1895.

Pitman, Arthur John, M.D. (Dartmouth Coll.) 1891.

Potts, Joseph Henry (Dartmouth Med. Sch. Senior),

Powell, Lefferts Morrell, M.D. (Hahnemann Med. Coll. and Hosp., Chicago, Ill.) 1896,

Sawabini, Elias Jacob, M.D. (Baltimore Med. Coll. of Phys. and Surg.) 1898,

Spencer, George Albert, M.D. 1892,

Steele, John McClary, M.D. (Laval Univ.) 1890, Sullivan, Joseph Vincent, M.D. (Maryland Med.

Coll.) 1903,

Tenney, Elmer Seth, B.L. (Dartmouth Coll.) 1894, M.D. (ibid.) 1897,

Walker, William Hall,

Whitcher, Burr Royce, A.B. (Dartmouth Coll.) 1902.

Whiteside, George Shattuck, M.D. 1897,

1904-05.

Bennett, Adolphus Bogardus, Jr., M.D. (Columbian Univ.) 1901,

Berry, Nathaniel Leander, M.D. 1903,

Chase, Herbert Edwin, M.D. (Dartmouth Med. Sch.) 1893,

Coulthard, Walter Livingston, M.B. (Toronto Univ.) 1904,

DeWolf, Halsey, A.B. 1892, M.D. (Univ. of Pennsylvania) 1897,

Southboro.

Boston.

Somerville.

Worcester.

Rutland.

W. Somerville.

Charlestown.
Somerville.

Bomerviii

Chelsea.

Candia, N.H.

No. Billerica.

Groton.

Jerusalem, Palestine.

Haverhill.

Worcester.

Fall River.

Malden.

Brookline.

Woodsville, N.H.

Boston.

Washington, D.C. Lynn.

Boston.

Vancouver, B.C.

Providence, R.I.

Fitzgibbon, Edward James, M.D. 1904,

Gooding, Harvey Burt, Ph.G. (Scio Coll. of Pharm.) 1898, M.D. (Ohio Med. Univ.) 1901,

Grant, George Herbert, M.D. (Rush Med. Sch.) 1888,

Grant, William Victor, CH.B. (Boston Univ.) 1901, M.D. (ibid.) 1902,

Kelleher, Patrick Francis, M.D. (Tufts Med. Sch.) 1896.

Kepler, Charles Ober, A.B. (Baldwin Univ.) 1887, A.M. (ibid.) 1890, M.D. (Harvard Med. Sch.) 1899,

Lynch, Edward Richard, M.D. (Baltimore Med. Coll.) 1896,

McLaughlin, Henry Valentine, L.R.C.S. (Dublin Univ.), L.R.C.P. (Edinburgh Univ.) 1884,

McPherson, William Ellsworth, M.D. 1891,

Madden, William Daniel, A.B., A.M. (Mt. St. Mary's Coll.) 1891, M.D. (Harvard Med. Sch.) 1894,

Miller, William, M.D. (Tennessee Med. Univ.) 1875, Mills, Alvah Vernon (Vermont Med. Sch. Senior), Nelson, Louis, A.B. 1900, M.D. 1904,

Peck, Luke Baker, M.D. (Tufts Med. Sch.) 1897,Pritham, Frederick John (Med. Sch. of Maine Senior),

Rowland, Russell Sturgis, s.B. (Univ. of Michigan) 1898, M.D. (ibid.) 1901,

Smith, William Morgan, M.D. (Tufts Med. Sch.) 1904,

Spratt, Charles Nelson, s.B. (*Univ. of Minn.*) 1897, M.D. (*Johns Hopkins Univ.*) 1901,

Swift, Henry Marshall, M.D. 1900,

Tenney, Benjamin, A.B. (*Dartmouth Coll.*) 1883, A.M. (*ibid.*) 1887, M.D. (*Harvard Med. Sch.*) 1892,

Williams, Tom Alfred, M.B., C.M. (Edinburgh Univ.) 1896,

FOURTH CLASS.

Adams, Charles Waldron, A.B. 1901, Amsden, George Samuel, A.B. 1901, Baker, Leslie Talbot, A.B. 1900, Beach, Sylvester Judd, A.B. 1901, Dorchester.

Tiffin, O.

Richmond, Ind.

Lawrence.

Cambridge.

Boston.

Brattleboro, Vt.

Brookline. Somerville.

Boston.
Ormond, Fla.
Roxbury.

Roxbury.

Brookline.

Freeport, Me.

Detroit, Mich.

Jamaica Plain.

Minneapolis, Minn.
Marlboro.

Boston.

Galveston, Tex.

Cambridge.
Ashtabula, O.
Boston.
Wayland.

Blake, Gerald, A.B. 1901,

Boardman, William Parsons, A.B. 1902,

Bosworth, Freeman Dodd, Jr., A.B. 1901,

Bryant, Clarence Edmund, B.L. (Dartmouth Coll.)

1901.

Burnett, Francis Lowell, s.B. 1902,

Chace, Fenner Albert, A.B. 1897,

Chase, Harrison Ayer, Ph.B. (Brown Univ.) 1901, Brockton.

Converse, Joseph Henry, 2d, s.B. 1902,

Dana, Harold Ward, A.B. 1900,

Day, Hilbert Francis, PH.B. (Yale Univ.) 1901,

Denning, Edward John, A.B. 1901,

Dexter, Richard, A.B. 1901,

Eastman, Theodore Jewett, A.B. 1901,

Ehrenfried, Albert, A.B. 1902,

Emery, Ernest Washburn, A.B. (Bates Coll.)

1892,

Faxon, Nathaniel Wales, A.B. 1902,

Fisher, Carl, s.B. (Carleton Coll.) 1901,

Gafforio, Pippo Joseph, B.L. (Dartmouth Coll.) 1900.

Gilpatrick, Roy Hawkes, A.B. (Yale Univ.) 1901, Goodell, William, A.B. (Amherst Coll.) 1901,

*Hagerty, Joseph James,

Hanson, William Clinton, A.B. 1899,

Hildreth, George Kelsea, A.B. (Dartmouth Coll.) 1900.

*Hoit, Henry Ambrose,

Holt, William Leland, A.B. 1901,

Hopkinson, George, A.B. (Brown Univ.) 1896,

Hoyt, Charles Wentworth, A.B. 1902,

Lee, Roger Irving, A.B. 1902,

McLaughlin, William Charles, A.B. (Brown Univ.) 1901,

MacLeod, Norman Murray, A.B. 1902,

Maguire, Eugene Leo, A.B. (Dartmouth Coll.)

Merrill, Charles Henry, A.B. (Dartmouth Coll.) 1901.

Moran, Charles Leo, A.B. 1902,

Murphy, James Cornelius, A.B. (Boston Coll.) 1901,

Boston.

Boston.

Cambridge.

Hyde Park.

Cambridge.

Fall River.

Brookline.

Boston.

Boston.

So. Boston.

Boston.

So. Berwick, Me.

Boston.

Ashburnham.

Stoughton.

Devils Lake, No. Dak.

Boston.

Cambridge.

Amherst.

Boston.

Cambridge.

Bethlehem, N.H.

Needham.

New York, N. Y.

Westford, Vt.

Rochester, N.Y.

Peabody.

Providence, R.I.

Newport, R.I.

Somerville.

Kennebunkport, Me.

Roxbury.

Norwood.

^{*} Entering previous to June, 1901.

Newhall, Harvey Field, A.B. 1901, A.M. 1902, Niles, Nathaniel Leo, Ph.B. (*Brown Univ.*) 1899, Ordway, Thomas, A.B. 1900, A.M. 1901,

O'Shea, John Henry, A.B. (Gonzaga Coll.) 1901, Overlander, Charles Leonard, Ph.C. (Univ. of

Kansas) 1898, Ph.B. (Yale Univ.) 1901, Proctor, Thomas Melville, A.B. (Amherst Coll.) 1901,

Reed, Carlisle, s.B. 1902,

Rice, Allen Galpin, A.B. 1902,

Robinson, David, A.B. (Brown Univ.) 1901,

Shanahan, Timothy Joseph, A.B. (Dartmouth Coll.) 1901,

Shattuck, George Cheever, A.B. 1901,

Sibley, Benjamin Ernest, A.B. (Wesleyan Univ.) 1898,

Southgate, Alfred Willard, A.B. (Amherst Coll.) 1901,

Stearns, Roy Sumner, s.B. (Middlebury Coll.) 1901,

Stevens, Harold Elmer Ellsworth, A.B. (Bates Coll.) 1901,

Storey, Thomas Andrew, Ph.D. (Leland Stanford Jr. Univ.) 1902,

Storrs, Henry Randolph, A.B. 1896,

Talbot, Fritz Bradley, A.B. 1900,

Talty, Franc's Eugene, A.B. (Manhattan Coll.) 1901,

Thayer, Nathan Pulsifer, A.B. (Colby Coll.) 1901, Van Voast, Rufus Adrien, Ph.B. (Yale Univ.) 1900,

Walcott, William Wright, s.B. (Mass. Inst. of Tech.) 1901,

Wardwell, James Knight, A.B. (Williams Coll.) 1901,

*Watts, Joseph Palmer,

Wentworth, Mark Hunking, 2d, A.B. 1901,

*Whiting, Nye Clinton,

Whitney, James Lyman, A.B. (Yale Univ.) 1901, Whittemore, Wyman, s.B. 1901,

Wilson, John Edward, A.B. (Dartmouth Coll.) 1901,

Lynn.

Providence, R.I. Cambridge.

Spokane, Wash.

Leona, Kan.

Wrentham.
Boston.
Springfield.
Cambridge.

Charlestown.
Boston.

Rialto, Cal.

Worcester.

Bristol, Vt.

Lewiston, Me.

Stanford Univ., Cal. Brookline. Brookline.

Buttonwoods, R.I. Waterville, Me.

Cincinnati, O.

Natick.

Roxbury.
Chelsea.
Cambridge.
Westboro.
Branford, Conn.
Boston.

Natick.

THIRD CLASS.

Adamian, Parnag Adam, A.B. (Central Turkey Coll.) 1897, B.D. (Episcopal Theol. Sch., Cambridge) 1901,

Barker, Williston Wright, A.B. (Brown Univ.) 1902,

Bartlett, William Bradford, A.B. 1902, Bigelow, Leslie Lawson, A.B. 1903,

Birnie, John Mathews, A.B. (Williams Coll.) 1901,

Boyd, David Hartin, A.B. (Wash. and Jeff. Coll.) 1902,

Bruce, Harold Milton, A.B. 1902,

Calder, Harold Granville, A.B. (*Brown Univ.*) 1902,

Callahan, Henry Alphonsus, A.B. (Boston Coll.) 1902,

Champion, Merrill Edwin, A.B. 1902,

Chapin, Laurence Dudley, A.B. 1902,

Chase, Gilman Leeds, A.B. 1903,

Christiernin, Charles Leonard, A.B. 1902,

Crosbie, Arthur Hallam, A.B. 1903,

Darling, Arthur Edwin, A.B. (Bates Coll.) 1902,

Fassett, Fred Julius, A.B. (Yale Univ.) 1898,

Frothingham, Channing, Jr., A.B. 1902,

Godfrey, Henry White, A.B. 1902,

Goldthwaite, Ralph Harvard, A.B. 1903,

Grant, Dick, s.B. 1897,

Green, Robert Montraville, A.B. 1902,

Halliday, John, A.B. 1899,

Hatch, Ralph Augustus, s.B. 1903,

Hollings, Charles Byam, A.B. 1900,

Holt, Charles Herbert, Ph.B. (*Brown Univ.*) 1902,

Kinnicutt, Roger, A.B. 1902,

Knoop, William Theodore, A.B. (Brown Univ.) 1901,

Knowlton, Roscoe Hosmer, A.B. 1903, Ladd, William Edwards, A.B. 1902,

Leopold, Jerome Sam, A.B. 1903,

Maguire, Daniel Francis, A.B. 1903,

Manning, John Brown, s.B. 1903,

Boston.

Newport, R. I.

Concord.

Columbus, O.

Springfield.

Allegheny, Pa. Chestnut Hill.

Providence, R. I.

Jamaica Plain.

Greenwood.

Springfield.

Randolph.

E. Boston.

Joliet, Ill.

Auburn, Me.

Montpelier, Vt.

Boston.

Hampton, N. H.

Brighton.

St. Mary's, Ont.

Boston.

Cairo, Ill.

Brook line.

Cambridge.

Pawtucket, R. I. Worcester.

Providence, R. I.

W. Acton.
Milton.

~- . -

Chicago, Ili.
Dorchester.

Boston.

Metcalf, Carleton Ray, A.B. 1902,

Mixter, Charles Galloupe, s.B. (Mass. Inst. of Tech.) 1902,

Mixter, William Jason, s.B. (Mass. Inst. of Tech.) 1902.

Murphy, Francis Vincent, A.B. (Dartmouth Coll.) 1902,

O'Reilly, James Archer, A.B. 1902,

Peirce, Bradford Hendrick, A.B. 1902,

Penhallow, Dunlap Pearce, s.B. 1903,

Pillsbury, Henry Church, A.B. (Dartmouth Coll.) 1902,

Pond, Lucius Beverly, A.B. (Yale Univ.) 1902, Pratt, David Damon, B.L. (Dartmouth Coll.) 1902, Pratt, Frederick Haven, A.B. 1896, A.M. 1898,

Richardson, Edward Peirson, A.B. 1902,

Risley, Edward Hammond, A.B. (Yale Univ.) 1902, *Ross, Wayland,

Rowley, John Carter, A.B. 1902,

Ruggles, Arthur Hiler, A.B. (Dartmouth Coll.) 1902,

Sanborn, Harvey Beede, A.B. (Dartmouth Coll.)

Sawyer, Wilbur Augustus, A.B. 1902,

Sparrow, Ernest Harold, A.B. 1902, Stevens, Horace Paine, A.B. 1903,

Stone, Emil Herman, A.B. 1902,

Swift, Walter Babcock, A.B. 1901, s.B. 1903,

Sylvester, Philip Haskell, A.B. 1902,

Trimble, James Guinne, Jr., A.B. (Fiske Univ.) 1902.

Turner, Charles Sampson, PH.B. (Brown Univ.) 1901, A.M. (ibid.) 1902,

Van Nüys, Fresenius, A.B. (Univ. of Virginia) 1899.

Wells, Orion Vassar, A.B. (Boston Univ.) 1902, Witherell, Carl Hamlin, A.B. (Colby Coll.) 1901,

Wood, Benjamin Ezra, A.B. 1901,

Wyman, John Howard, A.B. (Bowdoin Coll.) 1901, Skowhegan, Me.

Young, James Herbert, s.B. 1903,

Cambridge.

Boston.

Boston.

Newport, R.I. St. Louis, Mo. Cambridge.

Montreal, Can.

Lowell.

Unionville, Conn. Boston.

Worcester.

Boston.

Newburyport.

Boston. Brookline.

Jamaica Plain.

Gonic, N. H. San José, Cal. Cambridge. Cambridge. Cleveland, O. Boston. Newton Centre.

Nashville, Tenn.

Providence, R. I.

Cambridge. Bakersfield, Vt. Oakland, Me. Allston.

Amesbury.

^{*} Entering previous to June, 1901.

SECOND CLASS.

Allen, Fred Harold, A.B. (Amherst Coll.) 1902,

Ayer, James Bourne, Jr., A.B. 1903,

Baker, Harold Woods (Lawrence Scientific Sch. Senior),

Barnum, Francis Goodell, A.B. (Amherst Coll.) 1901,

Blackstone, Alfred Varney, PH.B. (Brown Univ.) 1903,

Blanchard, Howard Parker, A.B. (*Brown Univ.*) 1901,

Bowie, John Hughes, A.B. 1903,

Brant, Austin Trafton, A.B. (Boston Univ.) 1904,

Brown, Lloyd Thornton, A.B. 1903,

Bryant, John, Jr., A.B. 1903,

*Bullard, Channing Sears,

Cady, Frederic Benjamin Mooers, A.B. 1903,

Cahill, John William, A.B. (Holy Cross Coll.) 1903,

Carlton, Frank Carr, s.B. 1903,

Carr, Arthur Wyman, A.B. (Williams Coll.) 1902, A.M. (ibid.) 1903,

Chase, Charles Otis, A.B. (Brown Univ.) 1903, Collins, Arthur Nelson, A.B. (Univ. of Minn.)

Congdon, Russell Thompson, A.B. (Ripon Coll.) 1903.

Connor, William Henry, A.B. (Holy Cross Coll.) 1902.

Corbett, Jeremiah Joseph, A.B. (St. Francis Xavier Coll.) 1899,

Creeley, Oscar Slade, s.B. (Tufts Coll.) 1903,

*Cullinane, Timothy Joseph,

Cutter, Irving Taylor, A.B. 1903,

Day, Charles Orrin, Jr., A.B. (Yale Univ.) 1903, Devaney, Patrick Aloysius, A.B. (Boston Coll.) 1903.

*Doherty, Francis Joseph,

Draper, Edwin Lyon, A.B. (Univ. of Illinois) 1902,

Drew, Charles Allen, s.B. (Dartmouth Coll.) 1900,

* Entering previous to June, 1901.

Holyoke.
Boston.

Waltham.

Auburndale.

State Farm.

Roxbury.
Gardiner, Me.

Newtonville. Worcester.

Cohasset.
Cambridge.

Cambridge.

Worcester. Salem.

Ashby.
Haverhill.

Minneapolis, Minn.

Ripon, Wis.

 $Pitts {\it field}.$

Peabody.
Belmont.

Andover.

Brookline.
Andover.

Waltham. Woburn.

Albany, N. Y.

Sharon.

English, Martin Joseph, A.B. (Holy Cross Coll.)

Farnsworth, George Bourne, A.B. (Bowdoin Coll.) 1903,

Fraser, Archibald McKay, A.B. (St. Francis Xavier Coll.) 1903,

Geary, Cornelius Edward, A.B. (Holy Cross Coll.) 1903.

Goldsbury, Paul Williams, A.B. (Williams Coll.) 1892.

*Greene, Willard Charles,

Gregg, Donald, A.B. 1902,

Harmer, Torr Wagner, A.B. 1903,

Heath, Charles Pliny, A.B. 1903,

Higginbotham, Fred Augustus, s.B. (Trinity Coll.) 1902,

Hill, Lawrence Richardson, B.L. (Dartmouth Coll.) 1902,

Hunt, Albert Foster, PH.B. (Brown Univ.) 1899, Huntington, James Lincoln, A.B. (Dartmouth Coll.) 1902,

Janowsky, William (Rochester Univ. Senior), Kissock, Robert James (Harvard Coll. Senior), Leake, James Payton, A.B. 1903,

Lothrop, Oliver Ames, A.B. 1903,

McDonald, Charles Anthony, PH.B. (Brown Univ.) 1903,

*McKee, George Joseph,

McLaughlin, Thomas Joseph, A.B. (Mt. St. Mary's Coll.) 1902, A.M. (ibid.) 1904,

Mathewson, Earl Jerome, A.B. (Brown Univ.) 1903,

May, Benjamin Foreman, A.B. 1903,

Mercer, Walter Leo, A.B. (Holy Cross Coll.) 1902,

Miller, Malcolm Dean, A.B. 1901, Mudge, Otis Pope, A.B. (Dartmouth Coll.) 1903,

*Nutting, Joseph Francis,

*O'Brien, Stanislaus Patrick,

O'Connor, Joseph William, A.B. (Holy Cross Coll.) 1903,

O'Leary, Dennis Cornelius, A.B. (Holy Cross Coll.) 1896.

Peabody, Francis Weld, A.B. 1903,

Perry, Sherman, A.B. (Colby Coll.) 1901,

Worcester.

Boston.

E. Weymouth.

Leominster.

Warwick.

Milwaukee, Wis.

Colorado Springs, Colo. Somerville.

Wakefield.

Waltham.

Boston. Reading.

Cambridge. Rochester, N.Y. E. Boston. Cambridge.

Cambridge.

Providence, R. I. Pittsburg, Pa.

Woonsocket, R. I.

Central Falls, R. I. Albany, N.Y. Pittsfield. Cambridge. Danvers.

Ludlow.

Lowell.

Rutland.

Providence, R. I. Cambridge. Camden, Me.

STUDENTS. — FIRST CLASS.

Phipps, Cadis, A.B. 1903, Pratt, Mason Ross, A.B. 1904, Reed, Lawrence Bradford, A.B. 1903, Reese, Charles Arnold, A.B. (Brown Univ.) 1902, Rice, John Evarts, A.B. (Boston Univ.) 1903, Richards, Charles Maynard, A.B. (Leland Stanford Jr. Univ.) 1903,

Riley, Augustus, A.B. (Oberlin Coll.) 1903, Sadler, Roy Angelo, A.B. 1904.

Shaughnessy, Michael James, A.B. (Bowdoin Coll.) 1903,

Sheahan, George Maurice, A.B. 1902, Sidis, Boris, A.B. 1894, A.M. 1895, PH.D. 1897, Smith, Richard Mason, A.B. (Williams Coll.)

1903, Sobotky, Irving, s.B. (Amherst Coll.) 1903,

Spooner, Lesley Hinckley, A.B. 1903, Stanwood, Frederic Arthur, A.B. (Bowdoin Coll.) 1902,

Sturtevant, Roy Eliot, A.B. 1901, s.B. 1902, Supple, Edward Augustine, A.B. (Boston Coll.) 1903.

Swan, Lawrence Clarke, A.B. (Dartmouth Coll.) 1903.

Tyler, Fred Sylvester, A.B. (Yale Univ.) 1895, Waddell, Charles Walter, A.B. (West Virginia Univ.) 1900,

Walker, Irving James, A.B. 1903,

*Warden, Ralph Alexander,

Welker, Leo Edward, Ph.B. (Iowa Coll.) 1903, Wheelock, Harvey Lincoln, A.B. 1896, LL.B. (Columbia Univ.) 1899,

*Whitehouse, Eugene Dizer,

Boston.

Templeton. Brockton.

Newton Highlands.

Worcester.

San José, Cal. Riley, Ala. Milford.

Brockton. Quincy. Brookline.

E. Northfield. Northampton. Hingham.

Wellesley. Roxbury.

Holliston.

Stoughton. Roxbury.

Brandonville, W. Va. Malden. Boston.

Roxbury. Brighton.

Colfax, Ia.

FIRST CLASS.

Adler, Howard Felix (Univ. of California Senior), San Francisco, Cal. Bailey, Fay Warren (Harvard Coll. Senior), Bernstein, Harry Saul, A.B. 1904, Black, Edward Joseph, PH.B. (Brown Univ.) 1904, Providence, R.I. Bond, Earl Danford, A.B. 1900, Booth, Ernest Lazarus, A.B. 1905 (1904), Broderick, George Aloysius, A.B. (Holy Cross Coll.) 1903,

So. Hanover. Roxbury. St. Paul, Minn. E. Boston.

Lenox.

1904,

Tech.) 1900,

McCrudden, Francis Henry, s.B. (Mass. Inst. of

Brown, Edward Dunn, A.B. (Univ. of Pennsylvania) 1899, Chicago, Ill. Bryant, Owen, A.B. 1904, Cohasset. Buxton, Bertram Harrington, A.B. (Brown Univ.) 1904. Providence, R.I. Chase, Heman Baker, s.B. (Amherst Coll.) 1904, Hyannis. Conlon, Patrick Joseph, A.B. (Holy Cross Coll.) 1901, Worcester. Conway, Charles Joseph, A.B. (Holy Cross Coll.) Millville. Curtin, John Joseph (Harvard Coll. Senior), Waltham. Daniels, Ora George, A.B. (Tufts Coll.) 1900, Chelsea. Denning, Frederic Joseph (Harvard Coll. Senior), So. Boston. Eveleth, Samuel Chester, A.B. (Amherst Coll.) 1904. Marblehead. Fitzpatrick, Francis Joseph, A.B. (Boston Coll.) Charlestown. Gallison, James Murry, A.B. (Brown Univ.) 1904, Franklin. Gray, Edward John, s.B. (St. Joseph's Univ.) 1904, Salisbury, N. B. Hall, Robert Granville (Lawrence Scientific Sch. Senior), Worcester. Hartshorne, Isaac, A.B. (Amherst Coll.) 1904, Methuen. Hennelly, Thomas Patrick, A.B. (Tufts Coll.) 1904, Waltham. Hersey, Harold Waters, s.B. 1904, Hingham. Hildreth, Robert Dudley, s.B. (Amherst Coll.) 1904, Westfield. Hiltner, Walter Garfield, s.B. (Nebraska Univ.) 1904. Lincoln, Neb. Hinds, George Clarence, A.B. 1902, Allston. Holbrook, Charles Albert, A.B. 1900, Melrose. Jackson, Delbert Linscott, s.B. (Dartmouth Coll.) 1904, Chelsea. James, Reginald Sears (Harvard Coll. Senior), Cambridge. Jantzen, Francis Thomas (Harvard Coll. Senior), Lowell. Keever, Henry Floyd, A.B. 1905 (1904), Schuylkill Haven, Pa. Lane, Clarence Guy (Harvard Coll. Senior), Woburn. Lawrence, Charles Henry, Jr., A.B. 1903, Chicago, Ill. Lynch, William Francis, A.B. (Georgetown Univ.) 1904. E. Weymouth. McCarthy, Eugene Ambrose, A.B. (Brown Univ.)

Fall River.

Boston.

McFarland, William, A.B. (Williams Coll.) 1904, McGrath, Bernard Francis, A.B. (Georgetown

Univ.) 1894, M.D. (ibid.) 1895,

Marion, James Willis Johnson, A.B. 1904, Markolf, Harry Foster, A.B. (Middlebury Coll.)

1904,

Marks, Henry Kovál, A.B. (Leland Stanford Jr. Univ.) 1904,

Mason, Parkman Tuckerman, A.B. 1903,

Moore, Fred Porter (Harvard Coll. Senior),

Morrison, Hyman, A.B. 1904,

Morse, George W, Jr., A.B. 1904,

Murphy, Cornelius Aloysius, A.B. (Georgetown Univ.) 1904,

Murphy, Daniel Joseph, Jr., A.B. (Boston Coll.) 1904,

Nelson, Christian Augustus, A.B. (Brown Univ.) 1903.

Newburgh, Louis Harry, A.B. 1905 (1904),

O'Sullivan, William Daniel, B.L. (Dartmouth Coll.) 1900,

Porter, Karl Byron, s.B. (Univ. of Maine) 1904, Pratt, Horatio Whittemore (Lawrence Scientific Sch. Senior),

Quigley, Raymond Augustine, s.B. (Mass. Agric. Coll.) 1904,

Salisbury, Lucius Albert, A.B. (Brown Univ.) 1904,

Sharpe, William James Clyde, A.B. 1904,

Smith, George Gilbert (Harvard Coll. Senior), Stack, John Joseph, A.B. (Holy Cross Coll.) 1902,

Stankard, Thomas Francis, A.B. (Holy Cross Coll.) 1904,

Swift, John Baker, Jr., A.B. 1904,

Tighe, Michael Aloysius, A.B. (Boston Coll.) 1903, Lowell. Toppan, Roland Lesley, A.B. 1904,

Tuttle, Ralph Weare (Lawrence Scientific Sch. Senior),

Walsh, Edmund Francis, A.B. 1904,

West, Frederick Orra (Lawrence Scientific Sch. Senior),

Whittemore, William Stewart, A.B. 1904,

Worthen, Clarence Field, s.B. (Univ. of Vermont) 1903,

Greenwich, N.Y.

Beverly. Allston.

W. Rutland, Vt.

San Francisco, Cal. Ossining, N.Y. Cambridge. Boston. Clinton.

Somerville.

Newton Upper Falls.

Quincy. Cincinnati, O.

Lawrence. Oldtown, Me.

Grafton.

Brockton.

Sandy Creek, N. Y. Philadelphia, Pa. E. Orange, N.J. Roxbury.

Waltham. Boston.

Malden.

E. Andover, N.H. Boston.

Wohurn. Cambridge.

Barre, Vt.

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STUDENTS IN SUMMER COURSES, 1904.

Allen. John Howard, M.D. (Univ. of Pennsylvania)

1880,

1902, Portland, Me. Almy, Robert Lawton, Jr. Salem. Amsden, Henry Hubbard, CH.B. (Boston Univ.) 1895, M.D. (ibid.) 1896, Attleboro. Arms, Burdett Loomis, Brookline. Atwood, George Manley, M.D. (Bowdoin Med. Sch.) 1884, Haverhill. Barney, Elmer Joseph, Berlin, N.H. Bigelow, Edward Bridge, A.B. (Dartmouth Coll.) 1900, M.D. (Harvard Med. Sch.) 1904, Grafton. Bolling, Richard Walker, Huntsville, Ala. Boothby, Walter Meredith, A.B. 1902, Boston. Bosworth, Freeman Dodd, Jr., A.B. 1901, Cambridge. Bowler, John William, Hanover, N.H. Bragg, Jesse Sumner, A.B. (Bates Coll.) 1901, St. Albans, Me. Brant, Austin Trafton, A.B. (Boston Univ.) 1904, Newtonville. Bridgman, Burt Nichols, s.B. (Amherst Coll.) 1885, M.D. (New York Univ. Med. Coll.) 1889, Jamaica Plain. Bruce, Harold Milton, A.B. 1902, Webster. Burruss, George Sanford, M.D. (Walden Univ.) 1891. Augusta, Ga. Burt, Robert Telee, s.B. (Central Mississippi Coll.) 1890, M.D. (Meharry Med. Coll.) 1894, Kascinsko, Miss. Champion, Merrill Edwin, A.B. 1902, Greenwood. Chapin, Laurence Dudley, A.B. 1902, Springfield. Clark, Emma Chambers, M.D. (Coll. of Medicine, Syracuse, N. Y.) 1902, Clifton Springs, N. Y. Clarke, Israel James, M.D. (Univ. of New York) 1883, Haverhill. Clayton, Mary, M.D. (Cooper Med. Coll.) 1894, Ogdensburg, N. Y. Cockett, Marguerite Standish, Cambridge. Conlin, Robert Ellis, M.D. (Univ. of Vermont) 1904, Malone, N.Y. Croston, John Francis, M.D. (Univ. of New York)

Haverhill.

Daly, Timothy Joseph, M.D. 1897,	Lawrence.
Davis, Minot Flagg, M.D. (Univ. of the South) 1901,	Boston.
De Amezaga, Gualterius, M.D. (Univ. of Genoa)	
1889,	Boston.
Dennett, Alonzo Gustin, M.D. (Rush Med. Coll.)	
1883,	Lowell.
Derr, John Sebastien,	Boston.
Dubois, Eoline Beatrice Church, M.D. (Tufts Med.	70.4
Sch.) 1903,	Boston.
Dwyer, William Joseph,	Cambridge.
Falvey, Humphrey John, M.D. (Baltimore Med. Coll.) 1901,	Worcester.
Field, Charles Kingsley,	London, Eng.
Fleming, Peter Joseph, M.D. (Western Univ. of	Hondon, Eng.
Ontario) 1902,	Roxbury.
Foss, John William, M.D. 1899,	Phoenix, Ariz.
Foster, Walter Brownley, s.B. (Richmond Coll.)	,
1898, M.D. (Medical Coll. of Virginia) 1901,	Richmond, Va.
French, Corrilla Gertrude, M.D. (Willamette Univ.	,
Med. Sch.) 1895,	Portland, Ore.
Frothingham, Channing, Jr., A.B. 1902,	Brooklyn, N. Y.
Gallivan, Frank Bernard, A.B. 1893, M.D. 1894,	
рн.р. 1897,	Brooklyn, N.Y.
Garrett, Frank Steele, M.D. (Baltimore Med. Coll.)	
1898,	Chelsea.
Gately, Mary Agatha Murray,	Boston.
Gavin, Patrick Freebern, M.D. 1870,	So. Boston.
Goldsbury, Paul Williams, A.B. (Williams Coll.)	117 ' 7
1892,	Warwick.
Gould, Arthur Lewis,	Ellsworth, Me.
Graham, George Sellers, B.L. (Dartmouth Coll.) 1902,	Everett.
Green, Robert Montraville, A.B. 1902,	Boston.
Greene, Earle Robinson,	Milford.
Griffith, Lewis T, M.D. (Albany Med. Coll.) 1897,	Troy, N.Y.
Hamilton, Gordon, A.M. (Rust Univ.) 1899, PH.D.	2,09,2,12
(ibid.) 1900,	San Francisco, Cal.
Hanna, Delphine, M.D. (Univ. of Michigan) 1890,	Oberlin, O.
Harris, William Henry, M.D. (Meharry Med. Coll.)	
1893,	Athens, Ga.
Harrison, William Groce, s.B. (Alabama Polytechni	c
Inst.) 1890, M.D. (Univ. of Maryland) 1892,	Taliadega, Ala.
Hayden, Benjamin Franklin, A.B. (Bowdoin Coll.)	
1902,	So. Portland, Me.

Heffernan, David Aloysius, M.D. 1902,

Hogan, Edgar Poe, A.B. (Howard Coll.) 1893, A.M. (ibid.) 1898.

Hubbell, Adelbert Merton, M.D. (Boston Univ. Med. Sch.) 1889,

Hunt, Charles Henry, A.B. (Bowdoin Coll.) 1902, Johnson, Frederic William,

Jones, Everett, B.M. (Boston Univ. Med. Sch.) 1897, M.D. (ibid.) 1898,

Jones, Frederick Elmer, M.D. (Baltimore Univ.) 1897,

Jones, James Ambrose,

Keate, Walter, M.D. 1898,

Kelley, Eugene Robert, A.B. (Bowdoin Coll.) 1902,

Kite, George Lester,

Kleinsorge, Rudolph Ernst, s.B. (State Univ. of Iowa) 1904,

Ladd, William Edwards, A.B. 1902,

Lamb, Frank Heady, sc. B. (Univ. of Michigan) 1898, M.D. (Miami Med. Coll.) 1901,

Lathrop, Ruth Webster, A.B. (Wellesley Coll.) 1883, M.D. (Woman's Med. Coll. of Pennsylvania) 1891,

Lee, Thomas Sim, A.B. 1891, M.D. (Coll. of Phys. and Surg., Columbia) 1894,

Leopold, Jerome Sam, A.B. 1903,

Lindsey, John Hathaway, A.B. (*Brown Univ.*) 1892, M.D. (*Univ. of Pennsylvania*) 1899,

Long, Margaret, A.B. (Smith Coll.) 1895, M.D. (Johns Hopkins Univ.) 1903,

Lowney, John Francis, M.D. (Tufts Med. Sch.) 1900,

McCarthy, John William, A.B. (Holy Cross Coll.) 1901,

McCarthy, Henry Thomas, M.D. (Med. Sch. of Maine) 1901,

Macht, David Israel, A.B. (Johns Hopkins Univ.) 1902,

Marion, James Willis Johnson, A.B. 1904,

Mercer, Walter Leo, A.B. (Holy Cross Coll.) 1902,

Mitchell, Arthur, M.D. (Boston Univ. Med. Sch.) 1893,

Boston.

Birmingham, Ala.

Haverhill.
Portland, Me.
Clinton.

Brookline.

Boston.
Burlington, Vt.
Nacozari, Son, Mex.

Bangor, Me.
Graves Mills, Va.

Iowa City, Ia. Milton.

Glendale, O.

Philadelphia, Pa.

Washington, D.C. Chicago, Ill.

Fall River.

Hingham.

Fall River.

Holyoke.

Lewiston, Me.

Baltimore, Md. Allston.

Pittsfield.

Medfield.

Mitchell, William, M.D. (McGill Univ.) 1894, Morse, Arthur Henry, A.B. (Tufts Coll.) 1902, Murphy, Francis Vincent, A.B. (Dartmouth Coll.) 1902,

Newton, Rowland Stephen,

Norwood, Harold Bradshaw,

Ober, Frank Roberts,

O'Connell, George Bernard, M.D. (Univ. of Vermont) 1904,

O'Reilly, James Archer, A.B. 1902,

Palmer, Louis James,

Parker, Spotswood Hayes, M.D. (Univ. of Virginia) 1904,

Peters, William Harlan, M.D. (Baltimore Univ.) 1895,

Piper, Fred Smith, M.D. (Boston Univ. Med. Sch.) 1890,

Reese, Charles Arnold, A.B. (Brown Univ.) 1902, Richardson, Royall Roller, M.D. (Univ. of Virginia) 1899,

Risley, Edward Hammond, A.B. (Yale Univ.) 1902, Robertson, Alexander Rocke,

Rowe, Carleton Allen,

Ruddick, William Henderson, M.D. 1868, B.A.S. 1881,

Sawabini, Elias Jacob, M.D. (Baltimore Med. Coll. of Phys. and Surg.) 1898,

Sawabini, Jacob,

Sawyer, Wilbur Augustus, A.B. 1902,

Scoville, Wilbur Lincoln, Ph.G. (Massachusetts Coll. of Pharm.) 1889,

Seaman, William, M.D. (Univ. of Pennsylvania) 1892,

Sidis, Boris, A.B. 1894, A.M. 1895, Ph.D. 1896, Sise, Lincoln Fleetford, A.B. 1897, M.D. 1901,

Smith, Charles Leonard, A.B. (State Univ. of Iowa) 1891, M.D. (ibid.) 1904,

Smith, Frank Le Moyne, o.B. (Knox Coll.) 1887, M.D. (Iowa Coll. of Phys. and Surg.) 1900,

Sparhawk, Clement Willis, M.D. 1884,

Spencer, George Albert, m.p. 1892,

Stepp, Jacob, M.D. 1898,

Stevens, Harold Elmer Ellsworth, A.B. (Bates Coll.) 1901,

Highlandville.
Baltimore, Md.

Newport, R.I.
Fayville.
Beverly.
Northeast Harbor, Me.

Auburn, Me. St. Louis, Mo. Boston.

Portsmouth, Va.

Providence, R.I.

Lexington.
Newton Highlands.

Harrisonburg, Va. Newburyport. Montreal, Canada. Brookline.

So. Boston.

Jerusalem, Palestine. Boston. San José, Cal.

Newton Upper Falls.

E. Boston.
Roxbury.
Medford.

Iowa City, Ia.

Monroe, Ia. W. Roxbury. Boston. Dorchester.

Lewiston, Me.

Stevens, Horace Paine, A.B. 1903,

Stickney, Elizabeth Mary, M.D. (Tufts Med. Sch.) 1903,

Stone, Ellen Appleton, A.B. (Radcliffe Coll.) 1895, A.M. (Brown Univ.) 1896, M.D. (Johns Hopkins Med. Sch.) 1900,

Stoneroad, Rebecca, M.D. (National Univ.) 1903, Sullivan, Eulick Francis, M.D. (Univ. of Vermont) 1904,

Sweet, Mary Frances, M.D. (Coll. of Medicine, Syracuse Univ.) 1900,

Swift, John Baker, Jr., A.B. 1904,

Swift, Walter Babcock, A.B. 1901, s.B. 1903,

Sylvester, Philip Haskell, A.B. 1902,

Tibbetts, Hermann Kotzschmar, M.D. (Med. Sch. of Maine) 1904,

Trader, William Northam, Jr., M.D. (Univ. of Virginia) 1904,

Turner, George Henry, M.D. (Med. Sch. of Maine) 1903,

Ulman, Joseph Frankenstein, M.D. (Medico Chirurgical Coll. of Philadelphia) 1903,

Van Nüys, Fresenius, A.B. (Univ. of Virginia) 1899.

Van Voast, Rufus Adrian, PH.B. (Yale Univ.) 1900.

Wallace, George Loney, M.D. (Baltimore Med. Coll.) 1898,

Webb, Harold Randall, A.B. (Bowdoin Coll.) 1902, Welles, Franklin,

Whelan, Charles, s.B. (Dartmouth Coll.) 1901, White, Charles Stanley, M.D. (Columbian Univ.)

White, William Tisdale, M.D.v. 1897,

Wilson, George Brinton, M.D. (Dartmouth Coll.) 1888.

Wood, Benjamin Ezra, A.B. 1901,

1898,

Young, James Herbert, s.B. 1903,

Cambridge.

Dorchester.

Providence, R.I. Washington, D.C.

Three Rivers.

Syracuse, N. Y.
Boston.
Boston.

Newton Centre.

Portland, Me.

Hudgins, Va.

Portland, Me.

Philadelphia, Pa.

Cambridge.

Cincinnati, O.

Waverley.
Brunswick, Me.
Boston.

Washington, D.C. Allston.

Chelsea. Allston.

Boston.

Amesbury.









THE UNIVERSITY PUBLICATIONS

[Entered at the Post-office, Boston, Mass., as Second Class mail matter, April 8, 1901.

Act of July 16, 1894.]

Issued twice a month from August to March inclusive, and six times a month from April to July inclusive.

These publications include: -

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The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.

DRAWALL OF BALLS

OFFICIAL REGISTER

HARVARD UNIVERSITY

VOLUME II OCTOBER 25, 1905

NUMBER 35 Extra Ed.

THE

MEDICAL SCHOOL

1905-06

SECOND EDITION



Published by Marvard University CAMBRIDGE, MASS.

OFFICIAL REGISTER OF HARVARD UNIVERSITY

[Entered, March 24, 1905, at Boston, Mass., as second-class matter, under Act of Congress of July 16, 1894.]

Issued at Cambridge Station, Boston, Mass., twice a month from September to
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April to August inclusive.

These publications include: -

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The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.



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April to August inclusive.

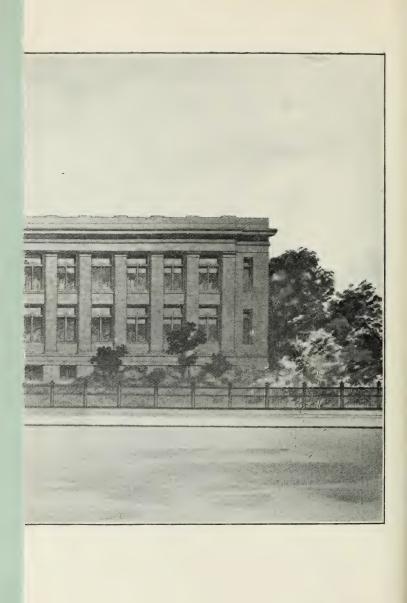
These publications include: -

The Annual Reports of the President and of the Treasurer. The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.



THE NEW BUILDINGS OF THE HARVARD MEDICAL SCHOOL TO BE READY IN THE SPRING OF 1906.



ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

(688 BOYLSTON STREET, BOSTON, MASS.)

OF

HARVARD UNIVERSITY

FOR

1905-06

SECOND EDITION



CAMBRIDGE, MASS.

Published by the University

1905

1905.						1906.														
JULY.						JANUARY.					JULY.									
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Pediatrics
Surgery
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MEDICAL SCHOOL CALENDAR.

1905.

- Sept. 21, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Wednesday. Examination in Chemistry for admission.
- Sept. 28, Thursday. Academic Year begins. Registration of Students.
- Oct. 2, Monday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Wednesday. Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 30, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Thursday. Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1905, TO JAN. 2, 1906, INCLUSIVE. 1906.

- Jan. 1, Monday. Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 13, Saturday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1906.
- Jan. 30, Tuesday. Mid-year Examinations begin.
- Feb. 1, Thursday. Second half-year begins.
- Feb. 22, Thursday. Washington's Birthday: a holiday.
- Mar. 31, Saturday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 15 TO APRIL 21, INCLUSIVE.

May 1, Tuesday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.

- May 1, Tuesday. Last day for receiving applications of candidates for the degree of M.D. in 1906.
- May 30, Wednesday. Memorial Day: a holiday.
- June 1, Friday. Last day for receiving applications for Scholarships for 1906-07 (except the Cheever and Hayden Scholarships).
- June 1, Friday. Examinations begin.
- June 27, Wednesday. Commencement.
- June 28, Thursday. Examination in Chemistry for admission.
- Summer Vacation of Thirteen Weeks, from Commencement to September 26, inclusive.
- Sept. 20, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 26, Wednesday. Examination in Chemistry for admission.
- Sept. 27, Thursday. Academic Year begins. Registration of Students.
- Oct. 1, Monday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Thursday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 29, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Friday. Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL.

FACULTY OF MEDICINE.*

- CHARLES W. ELIOT, A.M., LL.D., PRESIDENT.
- WILLIAM L. RICHARDSON, M.D., Dean, and Professor of Obstetrics.
- HENRY P. BOWDITCH, M.D., LL.D., D.Sc., George Higginson Professor of Physiology.
- CLARENCE J. BLAKE, M.D., Professor of Otology.
- J. COLLINS WARREN, M.D., LL.D., Hon. F.R.C.S. (Eng.), Moseley Professor of Surgery.
- REGINALD H. FITZ, M.D., LL.D., Hersey Professor of the Theory and Practice of Physic.
- THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

 JOHN H. McCOLLOM, M.D., Assistant Professor of Contagious

 Diseases.
- JAMES J. PUTNAM, M.D., Professor of Diseases of the Nervous System.

 FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical

 Medicine.
- EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery. CHARLES A. BRACKETT, D.M.D., Professor of Dental Pathology. THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.
- EUGENE H. SMITH, D.M.D., Professor of Mechanical Dentistry and Orthodontia, and Dean of the Dental School.
- WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum. CHARLES S. MINOT, S.D., LL.D., D.Sc., Professor of Histology and Human Embryology.
- MAURICE H. RICHARDSON, M.D., Professor of Clinical Surgery.
- CHARLES M. GREEN, M.D., Associate Professor of Obstetrics and Clinical Gynaecology, and Secretary of the Faculty of Medicine.
- EDWARD C. BRIGGS, M.D., D.M.D., Professor of Dental Materia Medica and Therapeutics.
- WILLIAM T. COUNCILMAN, M.D., Shattuck Professor of Pathological Anatomy.

^{*} Arranged here and elsewhere in the Catalogue, with the exception of the President and Dean, on the basis of collegiate seniority.

HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.

MYLES STANDISH, M.D., Assistant Professor of Ophthalmology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.

CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene.

WILLIAM H. POTTER, D.M.D., Professor of Operative Dentistry.

JOHN T. BOWEN, M.D., Assistant Professor of Dermatology.

GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine.

FRANZ PFAFF, M.D., Professor of Pharmacology and Therapeutics.

THEOBALD SMITH, M.D., George Fabyan Professor of Comparative Pathology.

WILLIAM T. PORTER, M.D., Associate Professor of Physiology.
FRANK B. MALLORY, M.D., Associate Professor of Pathology.
EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

WALTER B. CANNON, M.D., Assistant Professor of Physiology. JOHN WARREN. M.D., Demonstrator of Anatomy.

STANDING COMMITTEES FOR THE MEDICAL SCHOOL.

Course of Study. — Dr. Fitz (Chairman), and Drs. W. L. Richardson, Shattuck, Minot, Burrell, Porter, and Mallory.

Nominations. — Dr. Bradford, (Chairman), and Drs. Ernst, Harrington, Bowen, and Nichols.

Graduate and Summer Courses. — Dr. Mallory (Chairman), and Drs. Green, Cannon, Cabot, Joslin, Greenough, and J. Warren.

Admission. — Dr. W. L. Richardson (Chairman), and Drs. Green and Mallory.

Students' Health. — Dr. Ernst (Chairman), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

THE MEDICAL SCHOOL.

BOSTON.

GENERAL STATEMENT.

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of Bachelor of Medicine; beginning with 1811, the degree has been Doctor of Medicine. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first Medical College was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Physiological and Pathological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work will be required of each fourth year student; and courses will be offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 53.

The degree of Doctor of Medicine cum laude is given to candidates who obtain an average of 80 per cent or over in all the required examinations.

Pamphlets descriptive of the many Courses of Study for Graduates, and of the Summer Courses, may be obtained on application.

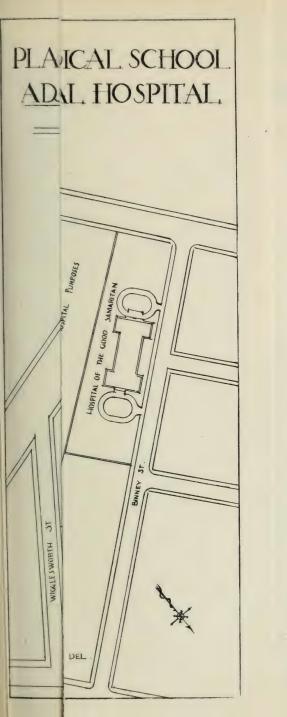
Inquiries may be addressed to the Dean of the Harvard Medical School, 688 Boylston Street, Boston, Mass.

The New Buildings.

In the spring of 1906 the Medical School will move from its present quarters on Boylston Street to commodious new buildings on Longwood Avenue, distant about a mile from the present building. At the new site the School possesses twenty-six acres of land. Eleven acres are now occupied by the Medical School buildings; the other fifteen are reserved for hospitals which, it is hoped, will be built on this ground in the near future.

The new buildings are five in number; one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—
(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology and chemistry; (3) pathology, bacteriology, and surgical pathology; (4) hygiene, pharmacology, comparative pathology, and surgical research.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms were originally designed. These buildings will provide an equipment



PLAN OF NEW BUILDINGS AND GROUNDS OF HARVARD MEDICAL SCHOOL DIACENT HOSPITALS AND SITE RESERVED FOR GENERAL HOSPITAL TREMONT ST SPACE RESERVED FOR GEN HOSPITAL PURPOSES SPACE RESERVED FOR GEN HUSPITAL PURPOSES INFANTS ADMINISTRATION PHYSIOLOGY ANATONIY PHYS CHEM HISTOLOGY BACTERIOLOGY PATHOLOGY LONGWOOD AVE

for teaching and research in various branches of medical science, which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

ADMINISTRATIVE BOARD.

WILLIAM L. RICHARDSON, M.D., DEAN, and Professor of Obstetrics.

J. COLLINS WARREN, M.D., LL.D., Hon. F.R.C.S., Professor of Surgery.

FREDERICK C. SHATTUCK, M.D., Professor of Clinical Medicine. WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum. CHARLES M. GREEN, M.D., SECRETARY, and Associate Professor of Obstetrics and Clinical Gynaecology.

CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene. FRANK B. MALLORY, M.D., Associate Professor of Pathology. WALTER B. CANNON, M.D., Assistant Professor of Physiology. JOHN WARREN, M.D., Demonstrator of Anatomy.

OFFICE HOURS OF THE DEAN, TUESDAY AND FRIDAY, 12.15 TO 1 P.M.; OF THE SECRETARY, MONDAY AND THURSDAY, 12 TO 1 P.M.

STANDING COMMITTEES.

Building. — Dr. Whitney (Chairman), and Drs. W. L. Richardson and J. Warren.

Advertising and Catalogue. — Dr. Green (Chairman), and Drs. Mallory and Cannon.

Library.—Dr. Shattuck (Chairman), and Drs. Harrington and Cannon.

Warren Museum. — Dr. Warren (Chairman), and Drs. Whitney and Mallory.

Fellowships. — Dr. Shattuck (Chairman), and Drs. Warren, Whitney, Harrington, and Mallory.

Scholarships and Students' Aid. — Dr. W. L. Richardson (Chairman), and Drs. Green and Cannon.

INSTRUCTORS, LECTURERS, AND ASSISTANTS.*

EDWARD COWLES, M.D., LL.D., Clinical Instructor in Mental Diseases.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

GEORGE W. GAY, M.D., Lecturer on Surgery.

Arranged here and elsewhere in the Catalogue on the basis of collegiate seniority.

ABNER POST, M.D., Instructor in Syphilis.

ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.

THOMAS A. DE BLOIS, M.D., Clinical Instructor in Laryngology.

JOHN W. FARLOW, M.D., Clinical Instructor in Laryngology.

SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

GEORGE H. MONKS, M.D., M.R.C.S., Lecturer on Surgery.

GEORGE L. WALTON, M.D., Clinical Instructor in Diseases of the Nervous System.

FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery.

FRANCIS B. HARRINGTON, M.D., Lecturer on Surgery.

PHILIP COOMBS KNAPP, M.D., Clinical Instructor in Diseases of the Nervous System.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

HENRY JACKSON, M.D., Instructor in Clinical Medicine.

ALGERNON COOLIDGE, JR., M.D., Clinical Instructor in Laryngology.
ROBERT W. LOVETT, M.D., Assistant in Orthopedics.

WILLIAM NOYES, M.D., Clinical Instructor in Mental Diseases.

ELLIOTT G. BRACKETT, M.D., Assistant in Orthopedics.

ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.

FREDERIC C. COBB, M.D., Assistant in Laryngology.

EDWIN E. JACK, M.D., Instructor in Ophthalmology.

PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery.

GEORGE A. CRAIGIN, M.D., Clinical Instructor in Pediatrics.

JOEL E. GOLDTHWAIT, M.D., Assistant in Orthopedics.

MALCOLM STORER, M.D., Assistant in Gynaecology.

JOHN W. BARTOL, M.D., Assistant in Clinical Medicine.

JOHN B. BLAKE, M.D., Instructor in Surgery.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

ELISHA FLAGG, M.D., Assistant in Anatomy.

JAMES M. JACKSON, M.D., Assistant in Clinical Medicine.

HOWARD A. LOTHROP, M.D., Instructor in Surgery.

JOHN L. MORSE, M.D., Instructor in Pediatrics.

ALEXANDER QUACKENBOSS, M.D., Instructor in Ophthalmology.

FRANKLIN G. BALCH, M.D., Assistant in Surgery.

EUGENE A. CROCKETT, M.D., Instructor in Otology.

JOHN DANE, M.D., Assistant in Orthopedics.

FRED B. LUND, M.D., Assistant in Surgery.

CHARLES A. PORTER, M.D., Instructor in Surgery.

EDWARD W. TAYLOR, M.D., Assistant in Neurology.

EZRA R. THAYER, LL.B., Lecturer on the Relation of the Medical Profession to the Law and the Courts.

HARVEY P. TOWLE, M.D., Assistant in Dermatology.
GEORGE W. W. BREWSTER, M.D., Assistant in Surgery.
RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.
ROCKWELL A. COFFIN, M.D., Assistant in Laryngology.
JOHN M. CONNOLLY, M.D., Assistant in Chemistry.
PHILIP HAMMOND, M.D., Assistant in Otology.
HENRY H. HASKELL, M.D., Assistant in Ophthalmology.
HENRY F. HEWES, M.D., Instructor in Clinical Chemistry.

ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic.

CALVIN G. PAGE, M.D., Assistant in Bacteriology. C. MORTON SMITH, M.D., Assistant in Syphilis.

CHARLES J. WHITE, M.D., Instructor in Dermatology.

FRANKLIN W. WHITE, M.D., Assistant in the Theory and Practice of Physic.

JAMES H. WRIGHT, M.D., S.D., Instructor in Pathology.

ERNEST A. CODMAN, M.D., Assistant in Surgery.

FRANCIS P. DENNY, M.D., Assistant in Clinical Medicine.

WILLIAM H. ROBEY, JR., M.D., Assistant in Clinical Medicine.

GEORGE S. C. BADGER, M.D., Assistant in the Theory and Practice of Physic.

EDMUND W. CLAP, M.D., Assistant in Ophthalmology.

ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

DANIEL F. JONES, M.D., Assistant in Surgery.

HARRIS P. MOSHER, M.D., Assistant in Anatomy, and in Laryngology.

FRANKLIN S. NEWELL, M.D., Instructor in Obstetrics, and Assistant in Gynaecology.

HENRY J. PERRY, M.D., Assistant in Bacteriology.

WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.

ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.

ERNEST B. YOUNG, M.D., Assistant in Gynaecology.

ALBERT M. BARRETT, M.D., Assistant in Neuropathology.

CHARLES S. BUTLER, M.D., Assistant in Anatomy.

JAMES C. DONOGHUE, M.D., Assistant in Histology.

WALTER A. LECOMPTE, M.D., Assistant in Otology.

HARRY C. LOW, M.D., Assistant in Pathology.

HENRY O. MARCY, JR., M.D., Assistant in Anatomy.

FRED M. SPALDING, M.D., Assistant-in Ophthalmology. HOWARD T. SWAIN, M.D., Assistant in Obstetrics.

FREDERICK S. BURNS, M.D., Assistant in Dermatology.

LEROI G. CRANDON, M.D., Assistant in Surgery.

LINCOLN DAVIS, M.D., Instructor in Anatomy.

EUGENE E. EVERETT, M.D., Assistant in Bacteriology.
MAYNARD LADD, M.D., Assistant in Pediatrics.

JOSEPH H. PRATT, M.D., Assistant in the Theory and Practice of Physic.

HENRY A. CHRISTIAN, M.D., Instructor in the Theory and Practice of Physic.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.

JAMES R. TORBERT, M.D., Assistant in Obstetrics.

GEORGE A. WATERMAN, M.D., Assistant in Neurology.

CARL L. ALSBERG, M.D., Instructor in Biological Chemistry.

JOHN L. BREMER, M.D., Instructor in Histology and Embryology.

CHARLES H. DUNN, M.D., Assistant in Pediatrics.

RALPH S. LILLIE, Ph.D., Instructor in Physiology.

EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

MAURICE V. TYRODE, M.D., Instructor in Pharmacology.

RICHARD G. WADSWORTH, M.D., Assistant in Anatomy.

ERNEST DEW. WALES, M.D., Assistant in Otology.

HORACE BINNEY, M.D., Assistant in Anatomy.

WALTER R. BRINCKERHOFF, M.D., Instructor in Pathology.

DAVID CHEEVER, M.D., Assistant in Anatomy.

FREDERIC T. LEWIS, M.D., Instructor in Histology and Embryology.

FREDERICK T. LORD, M.D., Assistant in Clinical Medicine.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

ELMER E. SOUTHARD, M.D., Instructor in Neuropathology.

GEORGE L. BAKER, M.D., Assistant in Bacteriology.

LAWRENCE J. HENDERSON, M.D., Instructor in Biological Chemistry.

FRANCIS W. PALFREY, M.D., Assistant in Bacteriology.

SAMUEL ROBINSON, M.D., Assistant in Anatomy.

S. BURT WOLBACH, M.D., Assistant in Pathology.

LOUIS NELSON, M.D., Assistant in Materia Medica.

GEORGE H. WRIGHT, D.M.D., Assistant in Histology.

AUSTIN TEACHING FELLOWS.

LANGDON FROTHINGHAM, M.D.V., in Bacteriology. FRED T. MURPHY, M.D., in Surgery. WILLIAM L. HOLT, M.D., in Comparative Pathology. FRED W. THYNG, Ph.D., in Histology and Embryology.

THE MEDICAL SCHOOL.

ADMISSION OF STUDENTS.

Candidates for admission to this School must present a degree in Arts, Literature, Philosophy, or Science from a recognized college or scientific school, with the exception of such persons, of suitable age and attainments, as may be admitted by a special vote of the Administrative Board in each case.*

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis sufficient to fit them to pursue the courses in Chemistry given at the Medical School; or, failing in this, to pass an examination in General Chemistry and Qualitative Analysis. Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry; but no student will be permitted to take part in any exercise of the third class, or to present himself for examination in the subjects of that class, until deficiencies in General Chemistry and Qualitative Analysis have been made up.

The admission examination in General Chemistry (at which time also the note-books in Qualitative Analysis must be handed in) is held at the Medical School, 688 Boylston St., Boston, at 12 o'clock noon on the Thursday following the last Wednesday in June, and on the last Wednesday in September. The examination is conducted in writing. Specimen examination papers may be found in the Medical School Catalogues.

In and after September, 1907, a knowledge of elementary Organic Chemistry will be required for admission.

Applicants for admission to the Medical School who have studied three years in recognized colleges, technical, or scientific schools, in which courses in Human Anatomy, Physiology, Histology, and Physiological Chemistry† are a part of the instruction, may be admitted to advanced

^{*} The exception above referred to applies only to men who, without such a degree, have acquired an equivalent education and training sufficient to enable them to profit by the instruction offered in the School.

[†] The course as now given to the first-year class comprises both physiological and pathological chemistry. Men applying for advanced standing who pass in physiological chemistry but not in pathological chemistry will be admitted with a condition in pathological chemistry and given an opportunity to make up the condition either by work in that subject during the latter part of the second half-year or by taking a summer course, and passing a satisfactory examination.

standing, provided they pass an examination in these subjects and possess the other requirements for admission.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations required in the full undergraduate course and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examinations), and June. The next year will begin September 27, 1906.

DIVISION OF STUDENTS.

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, including the admission examinations in Chemistry, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register on Thursday, the first day of the academic year. Beginning with the academic year 1906-07 students will be required

to devote themselves exclusively to the work of the School.*

Students who began their professional studies in other recognized Medical Schools may be admitted to advanced standing. who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission; but any student who has fulfilled the requirements of a Department of this School in another school of recognized standing may be excused from repeating such requirements provided the instruction which he has received is considered satisfactory by the head of the Department in this School.

Any student may obtain a certificate of his period of connection with the School.

^{*} The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

	DIVISION OF STUDIES.
BLECTIVES	Surgery Genito-Urinary Surgery Orthopedies Surgical Pathology Obstetries Gynaecology Bernatology and Psychiatry Ophthalmology Otology Laryngology
Pourth Year Electives	Anatomy Histology and Embryology Physiological and Pathological Chemistry Bacteriology Neuropathology Hygiene Clinical Medicine Theory and Practice Pediatrics Clinical Surgical Pathology
THIRD YEAR	*Materia Medica and Therapeutics Theory and Practice 3 Clinical Medicine 3 Pediatrics *Surgery (written 2 lns., 3 Clinical Surgery (written 1 ln., practical 1 ln.) 2 Obstetrics Gynaecology 1 Dermatology 1 Syphilis 1 Neurology 1 Eychiatry Surgery 1 Egal Medicine
SECOND YEAR	*Burteriology 3 *Pathology 3 Hygiene 1 Materia Medica and Therapeutics Theory and Practice Clinical Medicine Surgery
Pust Year	*Anatomy 3 *Histology and Embryology 3 Physiology 3 Physiological Chemistry 3 Pathological Chemistry 3

Nore.—Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates the length in hours of the examination. In the fourth year, electives must be chosen aggregating 1000 hours; each elective or half course has a value of 125 hours.

METHODS OF INSTRUCTION.

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE TABULAR VIEWS.

B.C.H. = Boston City Hospital. B.D. = Boston Dispensary.

B.I.H. = Boston Insane Hospital (Pierce and Austin Farms).

B.L.H. = Boston Lying-in Hospital.

Ch.H. = Children's Hospital.

E. and E.I. = Massachusetts Charitable Eye and Ear Infirmary.

H.M.S. = Harvard Medical School.

I.H. = Infants' Hospital.
L.I.H. = Long Island Hospital.
McL.H. = McLean Hospital.

M.G.H. = Massachusetts General Hospital.

S.D.B.C.H. = South Department, Boston City Hospital.

S.H. = Samaritan Hospital.

S.O.P.D. = Surgical Out-Patient Department.

Anatomy.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

John Warren, M.D., Demonstrator of Anatomy.

ELISHA FLAGG, M.D., Assistant in Anatomy

HARRIS P. MOSHER, M.D., Assistant in Anatomy.

Charles S. Butler, M.D., Assistant in Anatomy.

Henry O. Marcy, Jr., M.D., Assistant in Anatomy.

LINCOLN DAVIS, M.D., Instructor in Anatomy.

RICHARD G. WADSWORTH, M.D., Assistant in Anatomy.

Horace Binney, M.D., Assistant in Anatomy.

David Cheever, M.D., Assistant in Anatomy.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

Samuel Robinson, M.D., Assistant in Anatomy.

First year.—The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the

Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Text-books.—Cunningham. Quain. Morris. Gray. Gerrish. Woolsey, Applied Anatomy.

Collateral Reading. — Dwight, Frozen Sections of a Child. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Testut. Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Tillaux, Anatomie topographique. Humphry, Human Skeleton.

FIRST YEAR.

October.

Lectures. Professor Dwight. Nine hours weekly. 36 Demonstrations and study of bones and joints. Three hours daily. 72

November and December.

Lectures. Professor Dwight. Two hours a week in November, three hours a week in December. 20

Demonstrations. Dr. Warren. Four times a week to each section of the class.

Practical anatomy with recitations. Three hours a day, five times a week.

January.

Lectures and demonstrations. Professor Dwight. Daily. 24

Demonstrations. Dr. Warren. Four times a week to each section of the

class. 16

Demonstrations and study of the brain and organs of sense. Three hours a day, five times a week.

Practical anatomy with recitations. Three hours a day, five times a week.

Histology and Embryology.

Charles S. Minot, S.D., LL.D., Sc.D., Professor of Histology and Human Embryology.

James C. Donoghue, M.D., Assistant in Histology.

JOHN L. BREMER, M.D., Instructor in Histology and Embryology.

Frederic T. Lewis, M.D., Instructor in Histology and Embryology. George H. Wright, D.M.D., Assistant in Histology.

Fred W. Thyng, Ph.D., Austin Teaching Fellow in Histology and Embryology.

LABORATORY.

The laboratory comprises a general class room with places for ninety men, and four smaller rooms for the officers of instruction, advanced workers, and for the library and collections. There are 225 microscopes for students' use, which are let to students for three dollars a term. There are over 14,000 permanent preparations used in the class work, a histological collection illustrating most of the features of the microscopic structure of the higher animals, and an embryological collection which includes over nine hundred embryos of various selected vertebrates cut into serial sections, and thoroughly catalogued. There are also numerous wax and paper models for use in the course of instruction.

The equipment includes numerous microtomes, most of the leading patterns being represented, and many other pieces of apparatus, offering altogether ample facilities for elementary and advanced work and for investigation.

The library consists of complete sets of the most important histological and embryological journals, of the standard text-books, and of a private collection, which is open to investigators, of about six thousand pamphlets. A card catalogue and a classified bibliography are maintained, which give ready access to the literature of histology and embryology.

Text-books. — Böhm and von Davidoff, A Text-Book of Histology. Minot, Text-book of Embryology.

Collateral Reading.—Quain, Anatomy. Lee, Microtomist's Vademecum. Kölliker, Gewebelehre. Minot, Human Embryology. Van Gehuchten, Système nerveux.

REGULAR COURSES.

First year. — Histology and Embryology are taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December. Every student is recommended to purchase a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term. Each student is charged a laboratory fee of two dollars.

FIRST YEAR.

October.

Lectures. Professor Minot. Four times a week.

Laboratory work. Drs. Donoghue, Bremer, Lewis, and Wright.

Three hours, five times a week.

November.

Lectures. Dr. Lewis. Three times a week.

Laboratory work. Four hours, three times a week; three hours, twice a week.

December.

Lectures. Professor Minor. Twice a week.

8 Laboratory work. Four hours, four times a week; three hours, once a week.

GRADUATE COURSES.

I. Professor Minor with Dr. Lewis will give a course of thirty-two exercises on Elementary Human Embryology for practitioners. This course can be extended by a supplementary course of the same length. Fee, \$25.

Graduates taking these courses will be allowed the privilege of the Histological Laboratory. There will be an additional charge of \$5 for reagents and material.

II. Professor Minot with Drs. Bremer, Lewis, and Wright will give a course intended for persons who wish to make a special study of Vertebrate or Human Embryology. This course is open to registered students of the Graduate Department of the Faculty of Arts and Sciences, and will be offered hereafter also as a special course to graduate students of the Medical School.

This course will extend through the entire year, but in two parts of one term each. The resources of the Embryological Laboratory in apparatus and material render it possible to offer unusually favorable opportunities for both general study and special research. The course is arranged for those who, as morphologists, anatomists, and practitioners, wish to give the principal part of their time for one or more school terms to the subject. It will cover the whole field of Embryology, including the genital products, the theories of heredity and sex, the formation of the germ-layers, differentiation of the organs, the history of the placenta and the general morphology of Vertebrates or of Man. Most of the work will be done by the student in the laboratory, but there will also be formal lectures. Students taking this course will be expected to devote to it not less than eighteen hours a week.

Fee, for one term, \$75. Two terms, \$125.

The above courses I and II will be limited to twelve students in each course.

INVESTIGATION.

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology.

Henry P. Bowditch, M.D., LL.D., D.Sc., Professor of Physiology. William T. Porter, M.D., Associate Professor of Physiology. Walter B. Cannon, M.D., Assistant Professor of Physiology. Ralph S. Lillie, M.D., Instructor in Physiology.

First Year. — The method of teaching Physiology consists in placing before the student the classical experiments of the science grouped in the most instructive sequence. The student himself performs as many of these as his own skill and the length of the course permit. What he does he is required to do well. The experiments selected are those which best illustrate the several groups or chapters of which physiology is composed. Preference, where possible, is given to observations used in clinical medicine. The observations which he cannot himself make the student reads with an understanding grounded on his own practical experience. The facts thus gained are discussed in conferences, written tests, formal lectures, and recitations.

In the laboratory the student works one hundred and seventy-four hours. Each student is required to preserve the graphic records obtained in his experiments together with a brief account of his own observations. The character of the laboratory instruction may be seen from the examination questions, page 84.

The conferences, fifty-two half-hour exercises, are devoted to questions and explanations concerning the experimental work; they are, in fact, a combination of recitation and lecture.

The written tests are twenty-minute examinations held daily and one-hour examinations held weekly during fifteen weeks. The following are some of the questions: State experiments to show where stimulation begins on closure of the galvanic current. What is the reaction of degeneration? Mark on the intra-ventricular pressure curve the moment of opening and closure of the mitral and aortic valves. Give a brief account of the digestion of fat. Give evidence to show that afferent impulses are transmitted by the posterior roots of spinal nerves. Prove

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the existence of "hot and cold spots" on the skin. Cite experiments to show that the crystalline lens changes its shape in accommodation.

Eighty-six formal lectures are held. These are supplemented by the reading and discussion of forty-three theses.

One recitation is given weekly during fifteen weeks.

Twenty-four special demonstrations are given. The motor areas of the cortex of the brain, and the action of the chorda tympani nerve on the secretion of saliva are examples of the subjects chosen for demonstration.

Each student is required to write a physiological thesis, the material for which must be taken directly from the report of the original investigations. In addition each student is required to prepare at least one investigation not included in those used for his thesis. About forty-five of the theses are selected for discussion by the class and staff. The subjects chosen are as a rule such as will supplement the instruction given in other ways. The discussions are held about five times a week from the sixth to the fifteenth week inclusive. The discussion is opened by three students, each of whom has prepared himself upon some of the original investigations included in the theses, and is continued by the members of the class and of the staff. Among the theses discussed in the last collegiate year were: The excretion of urea; Internal secretion of the pancreas; Oedema; Regeneration of blood after hemorrhage; Artificial parthenogenesis; and Aphasia.

Text-books. — Text-book of Physiology, edited by E. A. Schäfer. Foster, Text-book of Physiology. American Text-book of Physiology. Waller, Human Physiology. Hermann, Lehrbuch der Physiologie. Porter, Introduction to Physiology.

First Year (Second half). Laboratory experiments. Professor Porter, Assistant Professor Cannon,

and Dr. Lillie. Daily, except Saturday.	174
Conferences (52). Assistant Professor Cannon.	26
Written tests (76). Twenty minutes daily, except Monday and S	Saturday.
	25
Written tests (15). One hour Mondays.	15
Lectures (86). Professor Porter and Assistant Professor Cana	NON. 43
Special demonstrations (23). Professor Porter and Assistant	Professor
CANNON.	15
Recitations (15). Professors Bowditch and Porter. Se	aturdays.

Discussion of Theses (43).

Thesis. Written by each student from the original sources.

First to fifteenth week, inclusive.

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

Physiological and Pathological Chemistry.

John M. Connolly, M.D., Assistant in Chemistry.

Henry F. Hewes, M.D., Instructor in Clinical Chemistry.

Carl L. Alsberg, M.D., Instructor in Biological Chemistry.

Lawrence J. Henderson, M.D., Instructor in Biological Chemistry.

First year. — The course in Physiological Chemistry extends through eight weeks and consists of a lecture, demonstration, or recitation daily, and of six laboratory exercises of two to three hours' duration a week. The course is so arranged that the student is enabled to conduct his laboratory work on the various subjects included in the course in direct connection with the lecture room instruction.

The subjects studied in this course are the carbohydrates; the proteids, their composition, relationships, chemical properties, methods of precipitation and separation; the fats; the chemistry of epithelial, connective, muscular, and nervous tissues; the chemistry of digestion; bile; blood; lymph; milk; and urine.

During the second half of the course (Pathological Chemistry), special attention is given to the clinical study of the urine. Each student examines, chemically and microscopically, a large number of specimens, and becomes thoroughly familiar with the composition of this secretion in normal and pathological conditions, and with the best methods for the detection of pathological constituents. The best methods for the quantitative determination of the more important normal and pathological constituents of the urine are also taught. The class in sections receives instruction in the diagnosis of renal and other diseases from the examination of the urines, and also has practical work in the examination of the blood and of gastric contents.

Opportunities for special investigation will be offered such students as can give the necessary time in the laboratory.

Text-books. — Hammarsten, Physiological Chemistry. Ogden, Clinical Examination of the Urine. Tyson, Practical Examination of Urine. Collateral Reading. — Halliburton, Text-book of Chemical Physiology and Pathology. Wharton and Stillé, Medical Jurisprudence, Vol. II, on Poisons. Simon, Physiological Chemistry. Bunge, Physiologic and Pathologic Chemistry. Herter, Lectures on Chemical Pathology. Taylor on Poisons. Lea, Chemical Basis of the Animal Body (appendix to Foster's Text-book of Physiology). Vaughan and Novy, Cellular Toxins.

PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY.

FIRST YEAR.

Lectures and demonstrations. Drs. Alsberg and Henderson. One hour four times a week.

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Laboratory exercises. Drs. Connolly, Hewes, Alsberg, and Henderson.

Two and a half hours a day four times a week, three and a half hours

once a week.

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Bacteriology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.

CALVIN G. PAGE, M.D., Assistant in Bacteriology.

HENRY J. PERRY, M.D., Assistant in Bacteriology.

ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.

EUGENE E. EVERETT, M.D., Assistant in Bacteriology.

FRANCIS W. PALFREY, M.D., Assistant in Bacteriology.

GEORGE L. BAKER, M.D., Assistant in Bacteriology.

LANGDON FROTHINGHAM, M.D.V., Austin Teaching Fellowin Bacteriology.

Second year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Text-books. — Muir and Ritchie. Abbott. Park. Collateral Reading. — Sternberg. Heim. Migula.

SECOND YEAR.

Lectures. Professor Ernst. Daily, except Saturdays, during October and November. 40

Laboratory work. Professor Ernst, and Drs. Page, Perry, Worthington, Everett, Palfrey, Baker, and Frothingham. Two to three hours daily during October and November.

Pathology.

WILLIAM T. COUNCILMAN, M.D., Shattuck Professor of Pathological Anatomy.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

James H. Wright, M.D., Instructor in Pathology.

ALBERT M. BARRETT, M.D., Assistant in Neuropathology. HARRY C. LOW, M.D., Assistant in Pathology.

W. T. D. D. D. Assistant in Pathology.

Walter R. Brinckerhoff, M.D., Instructor in Pathology. Elmer E. Southard, M.D., Instructor in Neuropathology.

S. BURT WOLBACH, M.D., Assistant in Pathology.

Second year.—The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. An abundance of material is provided for the course. Lectures and laboratory talks are given daily.

In the forenoons of the last two weeks of January, Professor T. Smith gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are : --

(a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)

(b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

Text-books. — Ziegler, General and Special Pathology. Stengel, A

Text-book of Pathology. Mallory and Wright, Pathological Technique. Collateral Reading.—Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, Die tierischen Parasiten des Menschen.

SECOND YEAR.

Lectures or conferences. Professor Councilman. Daily for fourteen weeks, October, November, December, and January. 84
Lectures. Professor T. Smith. One hour daily, third and fourth

weeks of January.

De hour daily, third and fourth

weeks of January.

Laboratory work. Professors Councilman and Mallory, and Drs. Wright, Low, Brinckerhoff and Wolbach. Three hours daily during the forenoons of October, November, December, and the first two weeks of January.

Demonstrations and laboratory work. Professor T. Smith. Two hours daily, third and fourth weeks of January. Neuropathology. Dr. Southard. Afternoons in December. 45

Surgical pathology. Asst. Professor Nichols. Afternoons in January. 60

Comparative Pathology.

THEOBALD SMITH, M.D., George Fabyan Professor of Comparative Pathology.

WILLIAM L. HOLT, M.D., Austin Teaching Fellow in Comparative Pathology.

Second year. - A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth year. - A course consisting of lectures and demonstrations on the comparative etiology of infectious diseases is given during the year as a part of the fourth-year elective in Clinical Medicine. In this course much time is devoted to a consideration of the general principles underlying infection and immunity, and their application to diagnosis, prevention, and therapy (vaccines, antitoxins, agglutinins, etc.). The public-health problems arising from the interrelation of human and animal diseases are also discussed.

A few graduate students qualified to carry on investigations may be accommodated at the laboratory at Forest Hills from October to June.

SECOND YEAR.

Lectures. Professor T. SMITH. (H.M.S.) One hour daily, third and fourth weeks of January. 12

Demonstrations and laboratory work. Professor T. Smith, and Drs. Low, Brinckerhoff, and Wolbach. Two hours daily, third and fourth weeks of January. 24

Hygiene.

CHARLES HARRINGTON, M.D., Assistant Professor of Hygiene. - , M.D., Assistant in Hygiene.

Second year. — The instruction consists of lectures and demonstrations. Text-book, - Harrington, Practical Hygiene.

Collateral Reading. - Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Abbott, Hygiene of Transmissible Diseases.

SECOND YEAR.

Lectures and demonstrations. Assistant Professor Harrington. (H.M.S.) Three times a week, second half-year. 48

Materia Medica and Therapeutics.

Franz Pfaff, M.D., Professor of Pharmacology and Therapeutics.

Maurice V. Tyrode, M.D., Instructor in Pharmacology.

Louis Nelson, M.D., Assistant in Materia Medica.

Second and Third years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice, and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological actions of drugs, and their practical value as remedies.

Text-book. - A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR.

Pharmacology lectures. Professor Pfaff. Twice a week, February to May inclusive. 32

Materia Medica lectures. Dr. Tyrode. Once a week, February to May inclusive. 16

Voluntary laboratory work. Drs. Tyrode and Nelson. Two hours once a week during April and May.

THIRD YEAR.

Lectures on Therapeutics. Professor Pfaff. Once a week, first halfyear. 16

The Theory and Practice of Physic.

- REGINALD H. Firz, M.D., Hersey Professor of the Theory and Practice of Physic.
- ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.
- ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.
- ELLIOTT P. Joslin, M.D., Instructor in the Theory and Practice of Physic.
- Franklin W. White, M.D., Assistant in the Theory and Practice of Physic.
- George S. C. Badger, M.D., Assistant in the Theory and Practice of Physic.
- Joseph H. Pratt, M.D., Assistant in the Theory and Practice of Physic. Henry A. Christian, M.D., Instructor in the Theory and Practice of Physic.

Second and Third years. — Lectures. Lectures on selected topics are given at the Medical School.

Clinical Exercises. — Clinical exercises in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Ward Visits. — Students in sections will visit patients at stated intervals in the wards of the Massachusetts General Hospital.

Section Teaching.—Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Text-books. — Osler, Practice of Medicine. Tyson, Practice of Medicine. Strümpell, Text-book of Medicine.

Collateral Reading. — Loomis-Thompson, American System of Practical Medicine. Allbutt, System of Medicine. Nothnagel, Specielle Pathologie und Therapie. Eulenburg, Real-Encyclopädie der gesammten Heilkunde.

SECOND YEAR.

- Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a week, second half-year. 32
- Clinical lectures. Professor Fitz. (M.G.H.) Once a week, second halfyear.
- Clinical lectures. Dr. Cutler. (M.G.H.) Twice a week, second halfyear. 32
- Exercises in sections. Drs. Stone, Joslin, White, Badger, and Pratt.

 Twice a week, second half-year, for each student.

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THIRD YEAR.

Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a
week, first half-year.	32
Clinical lectures. Professor Fitz. (M.G.H.)	
Twice a week, first half-year.	32
Once a week, second half-year.	16
Clinical lectures. Dr. Cutler. (M.G.H.) Once a week	, first half-
year.	16
Ward Visits. Dr. Cutler. (M.G.H.) During the year.	8
Exercises in sections. Drs. Stone, Joslin, White, Badger	and PRATT.
First half-year.	8

Clinical Medicine.

Frederick C. Shattuck, M.D., Jackson Professor of Clinical Medicine.
George G. Sears, M.D., Assistant Professor of Clinical Medicine.
Herman F. Vickery, M.D., Instructor in Clinical Medicine.
Henry Jackson, M.D., Instructor in Clinical Medicine.
John W. Bartol, M.D., Assistant in Clinical Medicine.
James M. Jackson, M.D., Assistant in Clinical Medicine.
Richard C. Cabot, M.D., Instructor in Clinical Medicine.
Francis P. Denny, M.D., Assistant in Clinical Medicine.
William H. Robey, Jr., M.D., Assistant in Clinical Medicine.
William H. Smith, M.D., Assistant in Clinical Medicine.
Edwin A. Locke, M.D., Assistant in Clinical Medicine.
Frederick T. Lord, M.D., Assistant in Clinical Medicine.

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second year.—The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week.

Clinical instruction for the entire class, five times a week, in diagnostic methods, diagnosis, and treatment.

Third year.— Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections in connectoin with the Department of Theory and Practice. Each student attends forty-eight exercises during the year.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Simon, Clinical Diagnosis. Cabot, Physical Diagnosis.

Collateral Reading. — Allbutt, System of Medicine. Twentieth Century Practice of Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Hare, Practical Diagnosis. Butler, Diagnostics of Internal Medicine. Le Fevre, Physical Diagnosis.

SECOND YEAR.

Clinics. Professor Shattuck and Dr. Vickery (M.G.H.) and Assistant Professor Sears and Dr. H. Jackson (B.C.H.). Five times a week, second half-year.

Physical Diagnosis. Drs. Cabot, J. M. Jackson, and Lord (M.G.H.), Drs. Robey and Locke (B.C.H.), and Dr. Denny (B.D.). Two exercises a week, second half-year, for each student.

THIRD YEAR.

Clinics. Professor Shattuck. (M.G.H.) Twice a week, first half-year; once a week, second half-year.

Assistant Professor Sears. (B.C.H.) Once a week.

Dr. H. Jackson. (B.C.H.) Once a week, first half-year.

Dr. Bartol. (B.C.H.) Twice a week, second half-year.

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Pediatrics.

THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.

JOHN H. McCollom, M.D., Assistant Professor of Contagious Diseases.

George A. Craigin, M.D., Clinical Instructor in Pediatrics.

JOHN L. Morse, M.D., Instructor in Pediatrics.

MAYNARD LADD, M.D., Assistant in Pediatrics.

CHARLES H. DUNN, M.D., Assistant in Pediatrics.

Third Year. — Lectures on selected topics preparatory for the clinical teaching are given early in the year. Clinical lectures are given from November to April inclusive at the Children's Hospital and at North Grove Street; the students are required to take an active part in the examination and discussion of the cases. A certain number of recitations on subjects selected as best taught in this way are held in the course of the year, and a large amount of case teaching occurs in the latter part of the year. Sectional teaching at the bedside is given from October to May inclusive, and comprises a large proportion of the year's instruction. During the first half-year the class in sections receives instruction three times a week in the contagious wards of the Boston City Hospital, where each student

is shown and examines cases of diphtheria, scarlet fever, and measles. Each student is taught the technique of intubation, and has an opportunity to see intubation performed. A written report of the cases seen is required. In all the clinical and sectional teaching especial attention is paid to clinical therapeutics.

Text-book. — Rotch, Pediatrics.

Collateral Reading. — Keating, Cyclopaedia of the Diseases of Children. Northrup, American Edition of The Diseases of Children, by Ashby and Wright. Jacobi, Therapeutics of Infancy and Childhood. Holt, Diseases of Infancy and Childhood. Sachs, The Nervous Diseases of Children.

THIRD YEAR.

- Lectures. Professor Rotch. (H.M.S.) Once a week, October 5 to December 21; twice a week, February 1 to February 26; once a week, March 1 to April 12.
- Dr. Ladd. (H.M.S.) Once a week, January 4 to January 25. 4 Clinical lectures. Professor Rotch. (Ch.H.) Once a week, October 6 to February 16.
 - Dr. Morse. (North Grove St.) Once a week, February 23 to March 30.
- Recitations and Case Teaching. Dr. Morse. Once a week, March 5 to April 16; twice a week, April 23 to May 31.

Section Teaching.

- Assistant Professor McCollom. (S.D.B.C.H.) Three times a week, first half-year.
- Dr. Morse. (Ch.H. and I.H.) 29 times, first half-year; 12 times, second half-year.
- Dr. Craigin. (Ch.II.) 46 times, first half-year; 6 times, second half-year.
- Dr. Ladd. (Ch.H. and I.H.) 48 times, first half-year; 26 times, second half-year.
- Dr. Dunn. (Ch.H and I.H.) 42 times, first half-year; 32 times, second half-year.

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Each student receives 29 hours of section teaching.

Surgery.

The Division of Surgery is composed of the departments of surgery, clinical surgery, orthopedic surgery, and surgical pathology.

J. Collins Warren, M.D., LL.D., Moseley Professor of Surgery.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.

MAURICE H. RICHARDSON, M.D., Professor of Clinical Surgery.

HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

GEORGE W. GAY, M.D., Lecturer on Surgery.

Samuel J. Mixter, M.D., Lecturer on Surgery.

George H. Monks, M.D., Lecturer on Surgery.

Francis S. Watson, M.D., Lecturer on Genito-Urinary Surgery.

FRANCIS B. HARRINGTON, M.D., Lecturer on Surgery.

ROBERT W. LOVETT, M.D., Assistant in Orthopedics.

ELLIOTT G. BRACKETT, M.D., Assistant in Orthopedics.

PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery.

JOEL E. GOLDTHWAIT, M.D., Assistant in Orthopedics.

JOHN B. BLAKE, M.D., Instructor in Surgery.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

HOWARD A. LOTHROP, M.D., Instructor in Surgery.

FRANKLIN G. BALCH, M.D., Assistant in Surgery.

John Dane, M.D., Assistant in Orthopedics. Fred B. Lund, M.D., Assistant in Surgery.

CHARLES A. PORTER, M.D., Instructor in Surgery.

GEORGE W. W. BREWSTER, M.D., Assistant in Surgery.

ERNEST A. CODMAN, M.D., Assistant in Surgery.

ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

Daniel F. Jones, M.D., Assistant in Surgery.

L. R. G. CRANDON, M.D., Assistant in Surgery.

FRED T. MURPHY, M.D., Austin Teaching Fellow in Surgery.

Instruction is given by systematic lectures, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third years.—A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and

in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technic; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. As early as may be in the second half of the second year, the course in surgical technic is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technic the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. During this month of service as surgical dresser the student receives instruction in anesthesia and instruction in minor genito-urinary surgery. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in orthopedic surgery is given in the first half of the year and consists of lectures at the Medical School and of clinical exercises at the Children's Hospital.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Books recommended.—International Text-book of Surgery. Warren, Surgical Pathology. American Text-book of Surgery (edition of 1903). Park's Surgery by American Authors. Cheever, Lectures on Surgery. Dennis, System of Surgery. König, Lehrbuch der Speciellen Chirurgie. Bryant, Operative Surgery. Jacobson (and Steward), Operations of Surgery. Brewer, Text-book of Surgery. DaCosta, Modern Surgery. Albert, Surgical Diagnosis (translated by Frank). Scudder, Treatment of Fractures. Stimson, Fractures and Dislocations. Marchand, Wund-

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heilung. Gould. Elements of Surgical Diagnosis. Wharton, Minor Surgery and Bandaging. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopedische Chirurgie. Keyes, Surgical Diseases of the Genito-Urinary Organs. Morton, Genito-Urinary Diseases and Syphilis. Mumford, Clinical Talks on Minor Surgery. Burrell and Blake, Case Teaching in Surgery.

SECOND YEAR.

- Laboratory course in Surgical Pathology. Assistant Professor Nichols.

 (H.M.S.) Twenty three-hour exercises during January. (See Pathology.)
- Clinical lectures in connection with the above course. Assistant Professor Nichols. (B.C.H.) Twelve exercises during January. 12
- Laboratory course in Surgical Technic. Dr. Lothrop. Six lectures to the entire class.
 - Twelve two-hour exercises for each student during second half of second year. 24
- Systematic lectures, demonstrations, and recitations. Professors Warren and Burrell. (H.M.S.) Four times a week.
- Clinical demonstrations in connection with the above lectures. Professor Richardson (M.G.H.), and Drs. J. B. Blake and Lothrop (B.C.H.).

 Four times a week.

THIRD YEAR.

- Systematic lectures, demonstrations, and recitations. Professors Warren and Burrell. (H.M.S.) Three times a week, first half-year. 48
- Clinical demonstrations in connection with above lectures. Professors Warren (M.G.H.) and Burrell (B.C.H.). Twice a week, first half-year.
- Clinical lectures. Professor M. H. Richardson. (M.G.H.) Once a week, second half-year.
 - Professor Burrell, and Drs. Gay and Monks. (B.C.H.) Twice a week, second half-year.
- Clinical exercises in surgical wards. Drs. Harrington, Lothrop, Codman, Lund, and Crandon. Twice a week for eight weeks, first halfyear.
- Lectures and demonstrations. Orthopedic surgery. Professor Bradford.

 (H.M.S. and Ch. H.) Once a week, first half-year.
- Lectures. Genito-Urinary Surgery. Dr. Thorndike. (H.M.S.) Once a week for eight exercises in October and November.
- Section teaching at the Hospitals. One hour a day for six days.

Obstetrics and Gynaecology.

WILLIAM L. RICHARDSON, M.D., Professor of Obstetrics.

CHARLES M. GREEN, M.D., Associate Professor of Obstetrics and Clinical Gynaecology.

MALCOLM STORER, M.D., Assistant in Gynaecology.

FRANKLIN S. NEWELL, M.D., Instructor in Obstetrics and Assistant in Gynaecology.

Ernest B. Young, M.D., Assistant in Gynaecology.

HOWARD T. SWAIN, M.D., Assistant in Obstetrics.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.

James R. Torbert, M.D., Assistant in Obstetrics.

OBSTETRICS.

Third year. — Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, to receive clinical instruction on at least one of them, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Text-book. - J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Revnolds and Newell, Practical Midwifery. Hirst, A Text-book of Obstetrics. Lusk, The Science and Art of Midwifery. Dorland, Modern Obstetrics.

THIRD YEAR.

Lectures on the Theory and Practice of Obstetrics. Professor W. L. RICHARDSON. (H.M.S.) Twice a week. 64 32

Recitations. Dr. Newell. (H.M.S.) Once a week.

Conferences. Professor W. L. RICHARDSON, Professor GREEN, and Drs. NEWELL, SWAIN, FRIEDMAN, and TORBERT. (H.M.S.) week.

Practical instruction in Clinical Obstetrics. Drs. Newell, Swain, Fried-MAN, and TORBERT. Throughout the year, i.e. every student must receive instruction on one of the six cases of labor which he attends, and may call for instruction in the other five cases if he desires.

GYNAECOLOGY.

Third year. - Lectures, recitations, and clinical instruction are given at the Boston City Hospital and the Boston Dispensary. The large outpatient departments of these institutions are utilized to accustom the student to the methods of examination, to the perfecting of diagnosis, and to the simple forms of treatment.

Text-book. - Garrigues, Diseases of Women-

Collateral Reading.—Skene, Diseases of Women. Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Dudley, Diseases of Women. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women.

THIRD YEAR.

Lectures or recitations. Professor Green. (H.M.S). Twice a week, second half-year. 32

Clinical exercises. Dr. Storer (B.D.), Drs. Newell and Young (B.C.H.). In sections, nine times a week in February and March, then three times a week. Every student receives six hours of instruction.

Dermatology and Syphilis.

John T. Bowen, M.D., Assistant Professor of Dermatology.

Abner Post, M.D., Instructor in Syphilis.

Harvey P. Towle, M.D., Assistant in Dermatology.

C. Morton Smith, M.D., Assistant in Syphilis.

Charles J. White, M.D., Instructor in Dermatology.

Frederick S. Burns, M.D., Assistant in Dermatology.

DERMATOLOGY.

Third year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Collateral Reading.—Stelwagon. Duhring. Hyde. Robinson. Crocker. Kaposi. v. Ziemssen. Besnier. Van Harlingen. Jackson. Taylor.

THIRD YEAR.

Lectures, demonstrations, and recitations on diseases of the skin. Assistant Professor Bowen. (H.M.S.) Once a week during October and November.

Clinical Dermatology. Assistant Professor Bowen. (M.G.H.) Once a week.

Clinical exercises. Assistant Professor Bowen. (M.G.H.) In sections, twice a week, February and March.

SYPHILIS.

Third year. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR.

Lectures. Dr. Post. (H.M.S.) Once a week, December and January. 8 Clinical lectures. Drs. Post and Smith. (B.D.) Once a week, April and May. 8

Clinical exercises. Drs. Post and Smith. (B.D.) In sections, twice a week, second half-year. Each student attends six two-hour exercises.

Neurology.

James J. Putnam, M.D., Professor of Diseases of the Nervous System. George L. Walton, M.D., Clinical Instructor in Diseases of the Nervous System.

Philip Coombs Knapp, M.D., Clinical Instructor in Diseases of the Nervous System.

EDWARD W. TAYLOR, M.D., Assistant in Neurology. George A. Waterman, M.D., Assistant in Neurology.

Second year.—Instruction is given during December on the pathology of the nervous system. The course is illustrated by lantern projections of histological preparations and by work in the laboratory.

Third year.—During the first half-year one lecture a week, and during the second half-year two lectures a week are given at the Massachusetts General Hospital. The lectures are illustrated by cases from the large and excellent out-patient service, and from the medical and surgical wards of the hospital. In addition, the students are given an opportunity to study cases outside the lecture hours, and to report on them.

Text-book.—Putnam and Waterman, Studies in Neurological Diagnosis.
Collateral Reading.—Gowers, Diseases of the Nervous System. Dana,
Text-book of Nervous Diseases. Herter, Manual of Diagnosis of Nervous
Diseases. Sachs, Nervous Diseases of Children. Mills, The Nervous
System and Its Diseases. Oppenheim, Diseases of the Nervous System
(English translation). Berkeley, Mental Diseases. Church and Petersen, Nervous and Mental Diseases. Jacob, Atlas of the Nervous System.

SECOND YEAR.

Pathology of the Nervous System. Dr. Southard. (H.M.S.) Fifteen exercises during December. (See Pathology.) 45

THIRD YEAR.

Clinical exercises. Professor Putnam. (M.G.II.) Once a week, first half-year; twice a week, second half-year.

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Psychiatry.

Edward Cowles, M.D., LL.D., Clinical Instructor in Mental Diseases. William Noyes, M.D., Clinical Instructor in Mental Diseases.

Third year. — Systematic lectures are given at the Medical School during the second half-year.

Text-books.—Kraepelin, Psychiatrie (English translation, Defendorf—Clinical Psychiatry). Clouston, Clinical Lectures on Mental Diseases. Folsom, Monograph in Pepper's System of Medicine. Berkley, Mental Diseases. Regis, Manual of Mental Medicine.

Collateral Reading.—Krafft-Ebing, Text-book of Insanity. Church and Peterson, Nervous and Mental Diseases. Brower and Bannister, Insanity. James, Psychology. Tuke, Dictionary of Psychological Medicine. Baldwin, Dictionary of Philosophy and Psychology. Hall, Adolescence. Barr, Mental Defectives.

THIRD YEAR.

Lectures. Dr. Cowles. (II.M.S.) Once a week, second half-year. 16

Ophthalmology.

Myles Standish, M.D., Assistant Professor of Ophthalmology.
Edwin E. Jack, M.D., Instructor in Ophthalmology.
Alexander Quackenboss, M.D., Instructor in Ophthalmology.
Henry H. Haskell, M.D., Assistant in Ophthalmology.
Edmund W. Clap, M.D., Assistant in Ophthalmology.
Fred M. Spalding, M.D., Assistant in Ophthalmology.

Third year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - DeSchweinitz. Fuchs. Swanzy. Jackson.

Collateral Reading. — Loring, On the Ophthalmoscope. Landolt, Refraction and Accommodation. Noyes. Norris and Oliver, System of Diseases of the Eye. Haab, Atlas of the External Diseases of the Eye.

THIRD YEAR.

Lectures. Assistant Professor Standish. (H.M.S.) Twice a week, in October and November.

Clinical exercises. Drs. Jack, Quackenboss, Clap, Spalding, and Haskell. (E. and E.I.) In sections, ten hours a week, first half-year. Every student receives fourteen hours of instruction. 14

Otology.

CLARENCE J. BLAKE, M.D., Professor of Otology.
EUGENE A. CROCKETT, M.D., Instructor in Otology.
PHILIP HAMMOND, M.D., Assistant in Otology.
WALTER A. LECOMPTE, M.D., Assistant in Otology.
ERNEST DEW. WALES, M.D., Assistant in Otology.

Third year.— Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - Buck. Bacon. Brühl and Politzer.

Collateral Reading.—Politzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Schwartze, Handbuch der Ohrenheilkunde.

THIRD YEAR.

Lectures. Professor Blake. (H.M.S.) Once a week, second halfyear. 16

Clinical exercises. (E. and E.I.) In sections, two hours, three times a week, second half-year. Every student attends four or five exercises.

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Laryngology and Rhinology.

Thomas A. Deblois, M.D.. Clinical Instructor in Laryngology.
John W. Farlow, M.D., Clinical Instructor in Laryngology.
Algernon Coolinge, Jr., M.D., Clinical Instructor in Laryngology.
Frederic C. Cobb, M.D., Assistant in Laryngology.
Rockwell A. Coffin, M.D., Assistant in Laryngology.
Harris P. Mosher, M.D., Assistant in Laryngology.

Third year.—Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has one lecture a week during the second half-year. For the practical work at the Massachusetts General and Boston City Hospitals, and the Boston Dispensary, the class is divided into small sections.

THIRD YEAR.

Lectures. Dr. Farlow. (H.M.S.) Once a week, second half-year. 16 Clinical exercises. Drs. De Blois and Farlow (B.C.H.), Cobb (B.D.), and Coffin (B.C.H.). In sections, second half-year. Twelve exercises for each student.

Legal Medicine.

EZRA R. THAYER, LL.B., will deliver a voluntary course of not more than six lectures on the relation of the medical profession to the law and the courts, during February, on evenings to be announced later. These lectures will be open to students and to the profession.

Legal Medicine is no longer taught as a separate study; but the several departments will give instruction in the medico-legal aspects of their respective subjects.

Municipal Sanitation.

Samuel H. Durgin, M.D., Lecturer on Hygiene.

THIRD YEAR. OPTIONAL COURSE.

Lectures. Dr. Durgin. (H.M.S.) Twice a week, February and March.

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year. The two half-courses elected for the first two or the last two months of each half-year must be formed on the same plan to avoid conflict.

Medicine, pediatrics, surgery, and obstetrics offer electives on the all-day plan.

Anatomy, histology, embryology, neuropathology, clinical surgical pathology, genito-urinary surgery, orthopedics, surgical pathology, gynaccology, dermatology, neurology, ophthalmology, otology, and laryngology offer electives on the half-day plan.

Physiology, chemistry, bacteriology, pathology, and hygiene offer electives on both plans.

The several half-courses offered by any one department are not necessarily graded courses, but represent hours of clinical, technical, and research work.

Students who intend to become general practitioners are advised to elect the following group of subjects:—

Medicine.			٠					٠		٠					3 .	half-c	courses.
Pediatrics															1	6.6	66
Surgery .															1	66	66
Obstetrics															1	66	66
Neurology	ar	nd	F	sy	ch	iat	ry	,	de	eri	na	tol	og	у			
and syph	ili	s,	or	g	yn	ae	co	lo	gу			٠	٠		1	66	44
Anatomy,	his	sto	lo	gy:	, 6	em	bı	y	olo	gy	,	ph	ys	i-			
ology, cl	nen	nis	str	y,	b	ac	teı	rio	lo	gy	, 1	nei	ar)-			
patholog	y, (or	the	ре	di	cs,	, 0	r	hy	gi	en	е			1	66	44

Students interested in surgery are advised to elect the following group of subjects:—

Medicine											٠		٠		2	half-	courses	š
Surgery													٠		2	6.6	66	
Genito-ur	in	ary	su	rge	ery										1	66	66	
Anatomy						٠					۰		٠	٠	1	6.6	4.6	
Gynaecol	og	уо	r cl	ini	ica	ls	ur	gi	eal	p	atl	nol	og	У	1	66	6.6	
Orthoped	ics	8 01	· su	rgi	cal	p	at	ho	lo	g v					1	6.6	66	

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned. Specia arrangements will be made for students desirous of paying exclusive attention to other subjects than those listed, for example, pharmacology and comparative pathology.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Board of Administration, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before the day of registration.

The Faculty reserves the right to modify the selection of the courses chosen by any student.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

Anatomy. - Half-courses, afternoons, throughout year.

Anatomy I..... October-November; December-January; February-March.

Anatomy II April-May.

Histology and Embryology. — Half-courses, afternoons, second halfyear.

Embryology I.... February-March.

Embryology II April-May. Histology April-May.

Physiology. — Half-courses, forenoons, afternoons, or all day throughout year.

Physiological and Pathological Chemistry. — Half-courses, forenoons throughout year; all day or afternoons, first half-year.

Bacteriology. — Half-courses, forenoons, afternoons, or all day, second half-year.

- Pathology. (1) Pathology. Half-courses, forenoons or all day, second half-year.
 - (2) Neuropathology. Half-courses, afternoons, first half-

Comparative Pathology. - No courses offered.

Pharmacology. - No courses offered.

- Medicine. (1) Clinical Medicine. Half-courses, all day, throughout
 - (2) Theory and Practice. Half-courses, all day, November to May inclusive.

Pediatrics. - Half-courses, all day, throughout year.

Clinical Surgical Pathology. - Half-courses, forenoons, throughout year.

Surgery. — (1) Surgery. Half-courses, all day, throughout year.

- (2) Genito-Urinary Surgery. Half-courses, forenoons, throughout year.
- (3) Orthopedics. Half-courses, afternoons, throughout
- (4) Surgical Pathology. Half-courses, afternoons, throughout year.

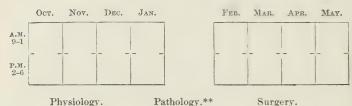
Obstetrics and Gynaecology: -

(1) Obstetries. Half-courses, all day, throughout year

(1) Onstetties.	mani-courses	, all day,	in oughout year.
(2) Gynaecology	. 44	forenoon	s, "
Dermatology and Syphilis.	. "	6.6	44 44
Neurology and Psychiatry	. 66	4.6	46 66
Ophthalmology.	6.6	4.6	second half-year.
Otology.	66	4.6	throughout year.
Laryngology.	66	6.6	first half-year.
Hygiene.	66	6.6	afternoons, or all day,
			throughout year.

DIAGRAMS OF FOURTH-YEAR ELECTIVES

Half-courses .- All-day Plan.



Chemistry.*

Pathology.** Medicine.

Surgery. Obstetrics. Hygiene.

Bacteriology.**

Pediatrics.

Half-courses .- Half-day Plan.

Anatomy.

	Oct.	Nov.	DEC.	Jan.		FEB.	MAR.	APR.	MAY.
A.M. 9-1							1		
							1		1
P.M. 2-6									
	1		1		1		1	,	1

Forenoons.

Physiology. Chemistry. Bacteriology.** Pathology.** Clinical Surgical Pathology. Genito-Urinary Surgery. Gynaecology. Dermatology and Syphilis. Neurology and Psychiatry. Ophthalmology.** Otology. Laryngology.* Hygiene.

Afternoons.

Histology.** Embryology.** Physiology. Chemistry.* Bacteriology.** Neuropathology.* Orthopedics. Surgical Pathology. Hygiene.

^{* =} first half-year.

^{** =} second half-year.

MAY.

1

Group of Courses Recommended for the General Practitioner.

	Ост.	Nov.	DEC.	JAN.		FEB.	MAR.	APR. MAY	r.
A.M. 9-1	ine	cine	eine	tries		ery	tries	1	
Р.М. 2-6	I Medicine	Media	Medi	Pediatries		Surgery	Obstetries	2	
Ĺ	Medi	cine					. 3 ha	lf-courses.	
	Obst	etries .					. 1 '		
	(1) N	Veurolog	gy and	psychi	atry, derm	atology	,		
		or gyn	aecolog	у			. 1 '		
	(2) A	Anatomy	, histo	logy, e	embryology	, physi	-		
		ology,	chemis	stry, b	acteriology	, neuro	-		
		pathol	ogy, or	thopedi	es, or hyg	iene .	. 1 "	46	

Group of Courses Recommended to Men interested in Surgery.

	Ост.	Nov.	DEC.	JAN.	FEB.	MAR.	APR.
A.M. 9-1	l Medicine	Medicine	Surgery	ırgery I	G. U. 8	Surgery	
P.M. 2-6	Me	Me	ž	SZ.	Ana	itomy	

Medicine	2	half-courses.
Surgery	2	66 66
Genito-urinary surgery	1	66 66
Anatomy	1	66 66
(1) Gynaecology or clinical surgical pathology	1	66 66
(2) Orthopedics or surgical pathology	1	66 66

GENERAL PLAN OF INSTRUCTION

ANATOMY. Half-courses, afternoons, throughout year.

(1) Anatomy I. October and November; December and January; February and March.

This is a dissecting course in which the three parts of the body are to be dissected. It will be under the direction of the demonstrator. Each student will be quizzed once a week and there will be a certain amount of supervision by the assistants.

N. B. — No one can take this course who has not passed his first-year anatomy.

(2) Anatomy II. April and May.

This is not to be considered a course for professional anatomists, but one suited to the practitioner. It will consist of topographical anatomy, the study of frozen sections, and of special parts of anatomy; in the selection of the latter every effort will be made to meet the wishes of those taking the course. For instance, some can give particular attention to the joints, others to the circulation, etc. Though there will be no systematic dissection the cadaver will be used for study and for special dissections. This elective will be under the immediate supervision of the professor of anatomy.

HISTOLOGY AND EMBRYOLOGY. Half-courses, afternoons, second halfyear.

- (1) Embryology I. February and March. Elementary laboratory course, especially correlated with anatomy and pathology.
- (2) Embryology II. April and May. Proresearch work. Each student will be given a special piece of work to verify and extend some important recent investigation.
- (3) Histology. April and May. General laboratory course offering training in methods. Each student must select in advance one of the three following forms of this course:—
- (a) General Histology, intended specially as preparation for advanced work in anatomy and pathology.
 - (b) General structure and development of the nervous system.
 - (c) General structure and development of the urogenital system.

Physiology. Half-courses, forenoons, afternoons, or all day, throughout year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies side by side with the members of the staff. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The student will be guided by personal conference with the professor in charge, and, if desirable, by informal lectures.

Physiological and Pathological Chemistry. Half-courses, forenoons, throughout year; all day or afternoons, first half-year.

A student may elect work along the general lines of the first-year course, or he may undertake research work on some special subject provided he is sufficiently trained in inorganic and organic chemistry.

Opportunity will also be afforded men interested in toxicology and medico-legal chemistry to pursue work in these fields.

Bacteriology. Half-courses, forenoons, afternoons, or all day, second half-year.

One month electives will be of two kinds, including: A, Instruction in methods of diagnosis depending upon bacteriological procedures; and B, Instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

(1) Pathology. Half-courses, forenoons or all day, second half-year. The work for students electing but one month will in general consist of training in postmortem technique and in the description of the various anatomical lesions found at the autopsies, supplemented with practice in bacteriology and surgical pathology afforded by a hospital laboratory. In addition each student will be required to study carefully at least one of the cases which come to autopsy and write a report of it embodying the clinical history and the literature bearing on the case.

Students who elect more than one month in pathology will be required to study thoroughly and report several cases and also undertake a limited piece of research work.

(2) Neuropathology. Half-courses, afternoons, first half-year. Each student will (a) be trained in the chief methods of neuropathological technique, and (b) receive the tissues and protocol of a case, upon which he will return a report and summary, involving library work. There will be a few lectures on the general subject. Competent students may undertake experimental problems.

Hygiene. Half-courses, forenoons, afternoons, or all day, throughout year.

The instruction will be suited to the qualifications of the individual student. It will consist in part of laboratory instruction and in part of special research. The regular course of laboratory instruction will comprise the analysis of air, soils, water and foods, and the investigation of disinfectants, etc.

MEDICINE. — I. Clinical Medicine. Half-courses, all day, throughout year.

The morning will be devoted to clinical work in various out-patient departments and hospital wards, the afternoon to lectures on special subjects. There will be required also a report of a single case which shall serve as the subject of a clinical conference, and a thesis containing original work of some character, the length of which will vary according to the number of half-courses elected. Eight such courses are offered, and the student may elect as many as he chooses.

- (1) Clinical Instruction. This will be of two kinds:
- (a) Work as assistant in the out-patient department or hospital wards.
- (b) Attendance on special courses of advanced clinical medicine to be given simultaneously at each hospital, three days a week, between nine and ten, by instructors or assistants in medicine.
- (2) Didactic Teaching. This will be given in the afternoon on special topics in medicine. These lectures will supplement to a considerable extent the specialized work given in the mornings between nine and ten. Other exercises will be devoted to case teaching, to demonstrations in gross pathology, given jointly by members of the pathological and medical departments, and to practical therapeutics.
- (3) Original Thesis. Each student shall present before graduation an original thesis which will embody clinical, laboratory, statistical, or literary work. The subject of the thesis shall be approved, and the work done under the supervision of some member of the medical department selected by the student. The thesis shall be presented at a meeting of the class presided over by one of the younger members of the depart-

ment selected by the professors. The member of the department under whose supervision the thesis of the afternoon has been prepared shall also be present.

- (4) Clinical Conference. Each student will report and discuss one case at a meeting of the class, as heretofore.
- II. Theory and Practice. The elective in medicine offered by the Department of Theory and Practice consists of half-courses involving attendance at the Massachusetts General Hospital throughout the day for one month from November to May inclusive. It will be limited to classes of four students but may be repeated when possible.

PEDIATRICS. Half-courses, all day, throughout year.

The work will consist of clinical instruction of cases in the wards and out-patient departments of the Infants' Hospital, Children's Hospital and the Contagious wards of the South Department. Students will be assigned to the various wards and out-patient departments by the Professor of Pediatrics and will work under his supervision, and in so far as is practicable the work will be assigned in reference to their individual needs and wishes. The students may also attend the clinical lectures given by Dr. Rotch in the third year. The direction of the clinical work will be carried out by the other members of the department. The work in detail cannot be described until the number of students electing Pediatrics is known.

CLINICAL SURGICAL PATHOLOGY. Half-courses, forenoons, throughout year.

The course will consist of a study of clinical cases with especial reference to the pathology of the lesions present and the use of the microscope in immediate diagnosis. The work will be supplemented with conferences and demonstrations in the Warren Museum.

SURGERY: -

(1) Surgery. Half-courses, all day, throughout year.

The instruction will consist of ward work, the examination of cases, the recording of histories, the establishing of diagnoses, the etherization of patients, the dressing of injuries, wounds, and fractures, the close observation of operations, seeing the progress of a surgical patient, and the end results of cases. The out-patient work will consist of the establishing of diagnoses, the treatment of cases under direction, and the recording of histories. This work will be carried out at the hospitals, in the wards and out-patient departments, and will occupy a part of each day, and will be from time to time directed and supervised by instructors.

The afternoons will be devoted to library, museum, and literary work, surgical pathology, case teaching, regional surgery, and operative surgery. Seminars and conferences will be held as occasion requires. The student will be required to account for his daily work.

Any student who wishes information or advice regarding his course in surgery in the fourth year may apply to Dr. H. L. Burrell, 22 Newbury St., on any day except Saturday or Sunday, between 2 and 3 P.M.

(2) Genito-Urinary Surgery. Half-courses, forenoons, throughout year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(3) Orthopedic Surgery. Half-courses, afternoons, throughout year. The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(4) Surgical Pathology. Half-courses, afternoons, throughout year. Students will be received in the surgical laboratory for the investigation of special subjects in the pathology of surgical diseases. The choice of subjects to be investigated may be made by the students, or the director of the laboratory will suggest the lines of investigation to be pursued. A considerable amount of fresh pathological material from surgical operations is received, and will be demonstrated to students who elect the course. The amount of material is sufficiently large to provide for numerous lines of investigation.

OBSTETRICS AND GYNAECOLOGY: -

(1) Obstetrics. Half-courses, all day, throughout year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the second half of his course he will also be given, at

the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

(2) Gynaecology. Half-courses, forenoons, throughout year.

The course will be given in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, which affords ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be expected to study, and report on, pathological specimens removed by operation.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. Reports of such cases will be presented at clinical conferences, for discussion by the instructors and by the class. As far as possible students will be expected to assist in clinical work.

Dermatology and Syphilis. Half-courses, forenoons, throughout year.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique.

Neurology and Psychiatry. Half-courses, forenoons, throughout year.

The instruction will be as follows:—

- (1) Recording histories and making examinations of patients presenting themselves at the out-patient department of the Massachusetts General and Boston City Hospitals.
- (2) Assisting in the treatment of such patients by electricity and otherwise.
- (3) Reading specified articles with reference to subjects coming up for investigation.
- (4) Making original investigations with regard to certain clinical points. For this purpose the patients presenting themselves at the out-patient department can be studied, and, to a limited degree, the patients in the medical and surgical wards of the hospital.

OPHTHALMOLOGY. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital.

OTOLOGY. Half-courses, forenoons, throughout year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, nose, and nasopharynx in addition to thorough clinical instruction.

LARYNGOLOGY. Half-courses, forenoons, first half-year.

The course is held on alternate days at the Boston City and Massachusetts General Hospitals. Systematic clinical instruction is provided from the 'abundant material of the out-patient departments, supplemented by demonstrations with the aid of diagrams and anatomical preparations. There are also practical exercises in the use of instruments and apparatus.

EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The Mid-Year and June examinations are only for those who are members of the School at the time, and for those entitled to apply for the degree. The September examination is only for those who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows:—

First year. — Anatomy * (3 hrs.), Histology and Embryology * (3 hrs.), Physiology (3 hrs.), Physiological and Pathological Chemistry (3 hrs.).

Second year. — Bacteriology * (1 hr.), Pathology * (2 hrs. written, 1 hr. practical), Hygiene (1 hr.).

Third year. — Materia Medica and Therapeutics * (2 hrs.), Theory and Practice * (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Sur-

^{*} The examinations in these subjects are held at the end of the first half-year.

gery * (2 hrs. written, 1 hr. practical), Clinical Surgery (1 hr. written, 1 hr. practical), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology * (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

In addition to the above examinations every student is required: -

To dissect the three parts of the body to the satisfaction of the demonstrator:

To present a satisfactory report of the analysis of a specimen of urine, and of the clinical examination of a specimen of blood;

To receive practical instruction in anesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technic in the second half of the second year;

To take charge of and report on six cases in Obstetrics, and to receive instruction on at least one of them;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES.

DEGREE OF DOCTOR OF MEDICINE.

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine cum laude will be given to candidates who have obtained an average of eighty per cent., or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before May 1 of the year in which they intend to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of June.

A graduate of another medical school of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned; but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

DEGREE OF MASTER OF ARTS.

The degree of Master of Arts is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the thirtieth day of April. It is advisable to apply to the Board early in the year.

FEES AND EXPENSES.

The fees are: - For matriculation, five dollars; for instruction, for the first three years, two hundred dollars for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars; for the full year, to all students entitled to be classified as fourth-year students and who have been regular members of the School for three full years, one hundred dollars (if in two payments, at the first, sixty dollars; at the second, forty dollars); for graduation, thirty dollars.* During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; two dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar† six dollars to cover Anatomy charges, two dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In

^{*} Students entering the School after the academic year 1902-03 shall pay a fee of \$200 for the fourth year and be exempt from a graduation fee.

[†] The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

the fourth year a charge of three dollars is made for material used in the course in Operative Surgery. A deposit of two dollars with the Dean will entitle a student to the use of a locker in the School building. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Payment of Fees.

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and fifty-three dollars; each student entitled to be classified as a fourth-year student, who has been a regular member of the School for three full years, is required to pay to the Bursar, in like manner, the sum of sixty dollars - or sixty-three dollars, if he takes the course in Operative Surgery; and all other students are required to pay, in the same manner, the sum of one hundred and twenty dollars. The remainder of the tuition fee - forty dollars for each student entitled to be classified as a fourth-year student who paid sixty dollars for the first half-year, and eighty dollars each for all other students, - must be paid to the Bursar on or before January 31. The graduation fee must be paid at least one day before Commencement, or, in the case of those who take the degree in the middle of the year, at least one day before the day upon which the Corporation is to meet for the purpose of voting the degrees. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students

will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. No degree will be conferred till all dues to the School are discharged.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at various prices can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

CLINICAL ADVANTAGES.

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various Clinical Subjects those advantages which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital. — During the past year, more than five thousand patients were treated in the wards, and over thirty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, and Ophthalmology. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital. — During the past year, about nine thousand cases were treated in its wards, and twenty-two thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous

system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital.—More than six hundred patients were confined during the last year in the Hospital. In the out-patient department over sixteen hundred cases were attended by the hospital Externes, who are appointed from the third and fourth year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — More than forty thousand patients were treated at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital. — The wards of the Hospital are devoted entirely to children under two years of age. About three thousand children of all ages are treated annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than seven hundred cases were treated in the wards and about seventy-six hundred in the outpatient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The Massachusetts Charitable Eye and Ear Infirmary. — Over thirty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.—This Hospital is designed particularly for the treatment of chronic diseases. It has two hundred and fifty beds, with an average daily number of patients of about two bundred and thirty. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent. of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

Students are also permitted to visit the Free Hospital for Women and the Carney Hospital on application to the physicians on duty.

There are more than sixty appointments annually for Internes in the various hospitals, and nearly as many more for Assistants in the outpatient departments. Appointments for the Massachusetts General and Boston City Hospitals are for terms of one to two years (according to the service chosen); for the Boston Lying-in Hospital for six months; and for the Free Hospital for Women for nine months.

WARREN ANATOMICAL MUSEUM.

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor Emeritus from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curater is Dr. William Fiske Whitney.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES.

Medical School students who are engaged in research work have access to the special libraries of the various departments on application to the persons in charge.

The College Library at Cambridge is open to the students of this School.

The Boston Public Library, which contains a large collection of medical books, is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library has nearly 35,000 volumes, about half of which are periodicals, and 30,000 pamphlets. Nearly 500 current journals and transactions are on file. There is a good reference library of modern

books, including encyclopaedias, systems, etc. The Library is open daily, except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August. It has always been free to medical students.

FELLOWSHIPS AND SCHOLARSHIPS.

FELLOWSHIPS.

Bullard Fellowships. In 1891, William Story Bullard, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established with a yearly income of two hundred and twenty-five dollars each:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.

THE JOHN WARE MEMORIAL FELLOWSHIP.

THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before October 1.

AUSTIN FELLOWSHIPS. In 1900, four teaching fellowships, of five hundred dollars each, were established from the income of the Austin Fund.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

SCHOLARSHIPS.

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

Barringer Scholarships. Two, known as the Edward M. Barringer Scholarship No. 1, and the Edward M. Barringer Scholarship No. 2, and having a yearly income of three hundred dollars and two hundred dollars respectively, from a bequest of Edward M. Barringer, will be awarded to deserving students, preferably those of the fourth class.

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ISAAC SWEETSER SCHOLARSHIP was founded in 1892 by Mrs. Anne M. Sweetser. The income of two hundred and fifty dollars is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ORLANDO W. DOE SCHOLARSHIP, The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

CHARLES PRATT STRONG SCHOLARSHIP, with an income of one hundred dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

The Lewis and Harriet Hayden Scholarship for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income is two hundred and twenty-five dollars.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

Joseph Eveleth Scholarships. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and

fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to such needy and deserving students of the Medical School as the Medical Faculty shall annually recommend.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

The John Thomson Taylor Scholarship, with an income of two hundred dollars, was founded in 1899 by Mrs. Frederic D. Philip in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

Lucius F. Billings Scholarship, with an income of two hundred dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings.

The Joseph Pearson Oliver Scholarship, with an income of three hundred and twenty-five dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. (Harvard, 1871), to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

A fund of five thousand dollars, the gift of an unknown donor, was established in 1905, the income of which shall be payable every year to such meritorious and needy students in the Harvard Medical School as shall be recommended by the Administrative Board of the School.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Medical Faculty may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is payable every other year to one or more meritorious students needing assistance. The next payment will be made in 1906.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

All applications for scholarships or pecuniary aid, except for the Cheever and Hayden Scholarships, must be handed to the Dean on or before June 1.

Applications for the Cheever and Hayden Scholarships must be handed to the Dean on or before *November 30*. These scholarships are open only to students who are members of the school at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Dean.

PRIZES.

Boylston Medical Prizes.—These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1905 two prizes were awarded: one to R. M. Yerkes, Ph.D., of Cambridge, Mass., for an essay entitled "Auditory-tactual reinforcement and inhibition in the frog," and one to Louis Nelson, M.D., of Roxbury, Mass., for an essay entitled "The action of the active principle of Jamaica dogwood."

For 1906 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology.* The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before January 1, 1906.

For 1907 two prizes are offered: —

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy*, *Physiology*, or *Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The* results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology. The subject to be chosen by the writer.

Dissertations on these subjects must be sent to the same address as above on or before January 1, 1907.

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In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

- 1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
- 2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: William F. Whitney, M.D., President; Harold C. Ernst, M.D., Secretary; Franz Pfaff, M.D., Theobald Smith, M.D., William T. Porter, M.D., Franklin Dexter, M.D., Edward H. Nichols, M.D.

The address of the Secretary of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, 688 Boylston Street, Boston, Mass., U. S. America, on or before Novem-

ber 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Toppan and Sumner Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged, for graduates of recognized medical schools, an improved plan of instruction, embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions:—

Massachusetts General Hospital, Infants' Hospital,
Boston City Hospital, Children's Hospital,
Boston Dispensary, McLean Hospital (for the Insane),
Massachusetts Eye and Ear Infirmary, Carney Hospital.

Boston Lying-in Hospital,

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

Instruction in the graduate courses is, with but few exceptions, entirely distinct from that of the undergraduate department of the School; but students of the former are admitted also to all the regular lectures (not clinical) of the latter, without extra charge, during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June. A certificate of attendance will be furnished, if desired.

FEES.

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address Dr. William L. Richardson, *Dean*, Harvard Medical School, 688 Boylston Street, Boston, Mass.

SUMMER COURSES OF INSTRUCTION.

During the summer of 1906, courses in many branches of practical and scientific medicine will be given by teachers in the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories of the School by the instructors in charge. These courses are open only to graduate and undergraduate students of medical schools recognized by the Faculty of Medicine, and to such others as the Dean of the Faculty approves.

A list of the Summer Courses will be announced early in the Spring. For further information address Dr. William L. Richardson, Dean, Harvard Medical School, 688 Boylston Street, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1905-06.

20. 20. 20. 20. 20. 25. Special.	Special. 25. 25. 30. 30. 30.	Sy Special Sy	ଜ୍ଜି ଜ୍ଜିଷ୍ଟ ଜ୍ନି
Feb.—May Now, Dec. Now, Dec. Feb. Dec., Jan. Oct., Nov. Feb. Jan.	Mar., May Dec., Jan. Jan., Mar. Nov.—Jan. Peb., Apr. Nov.—Jan. Dec., Jan. Nov.—June	Nov.—June Peb.—June Feb.—June Feb. Special Oct.—Jan. June—Sept. June—Ang. June—Ang. June—Ang. June—Ang.	Oct., Nov., Dec., Jan., Oct., Nov., Dec., Jan., Feb.—May. Feb.—May. Dec., Nov., Nov., Nov., Nov., Nov., May.
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Boston City Hospital Boston Dispensary Mass. General Hospital Boston City Hospital Mass. General Hospital Answ. General Hospital	Boston City Hospital Mass, General Hospital """ """ """ """ """ """ """ """ """	Boston City Hospital Medical School Medical School Meter Sch. & Hospital Ass. General Hospital """ "" "" "" "" "" "" "" "" "" "" ""	Mass. General Hospital """" """" """" Boston City Hospital
Dr. Robey for Locke Dr. Badger Dr. Pratt Dr. White Dr. White Dr. Pratt Dr. Pratt Dr. Tewes	Dr. Josian Dr. White Dr. Palirey Dr. Palirey Dr. Palirey Dr. Sanith Dr. Lord Dr. Lord Dr. Musgrave Smith, White, Locke,	Acooper, and Josinn Prof. Shatnek Prof. Sears Dr. J. H. Pratt Address Prof. Burrell Dr. Baech Grown Dr. Scaudet and Greenough Dr. Mumford Dr. J. B. Blake Dr. Mum ond Bottomley Dr. L. L. M	Dr. F. Cobb Dr. Balch Dr. C. A. Porter Dr. C. A. Porter Dr. Codman Dr. Codman Dr. Crandon
Clinical Medicine, 2 courses Clinical Medicine, 2 courses Clinical Medicine, 2 courses Clinical Medicine, 2 courses Clinical Medicine Diseases of the Lungs, 2 courses Diseases of the Lungs, 2 courses Diseases of the Myceardian, 2 courses Diseases of the Myceardian	Digestive Diseases, 2 courses Digestive Diseases, 2 courses Digestive Diseases, 2 courses Digestive Diseases, 2 courses Laboratory Methods, 2 courses Laboratory Methods, 4 courses Blood and Sputa, 4 courses Cytodiagnosis, 3 courses Med. Out-Patient Work, 8 courses	Therapeutics Therapeutics Hydrotherapy Research and special work in Surg. Major Surgery, 4 courses Major Surgery Major Surgery Major Surgery Major Surgery Abdominal Surgery Abdominal Surgery Clin. and Oper. Surgery	councal and Operative Surgery, 2 councal Surgery Clinical Surgery Diagnosis and After-Treatment of Surgical Diseases Surgical Diseases Surgery of the Joints Fractures and Dislocations, 2 courses Fractures, 5 courses

When time and fee are "special," arrangements must be made with the instructor. ‡ Women admitted conditionally. * Time includes months named.

† Women admitted.

FEE.	825 255 255 255 255 255 255 255 255 255	25.	8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	25.	ខ្មុំខ្មុំខ្មុំ	25.	25.	***	នុខខុខខុខ
Time.*	July and Sept. Apr., May Oct.—Jan. Nov.—Jan. Feb., July, Aug.	OctApr.	Oct.—Apr. Special Oct.—Dec. Feb.—May Feb., Mar.	Dec., Jan.	Sept. June, July, Sept. Special Special Special	Oct.—May	Mar.—May Oct.—Dec.	Jan.—Mar. Oct.—Dec. Apr.—June Jan.—Mar.	Oct.—Dec. Mar.—May Special Special Feb.—Apr. Dec.—Jan.
No. of Exer- cises.	24444	16	12 15. 24 24	24	24 25 24 18	1 9	. 8 21	22 22 22	24 24 16 16
Place.	Boston City Hospital Mass. General Hospital Boston City Hospital Children's Hospital	23	Carney Hospital Special Boston City Hospital	22 22 22	a " " " " " " " " " " " " " " " " " " "	Children's Hospital	Children's Hospital	2 2 2 2	Mass, General Hospital Boston Lying-in Hospital
Instructor.	Dr. Faulkner Dr. Lund Dr. Jones Dr. Johnes Dr. Crandon Prof. Burrell, Drs. H. W. \}	Dr. Brown	Dr. Brown Dr. Cheever Dr. Watson Dr. Watson Dr. Paul Thorndike	Dr. Cotton	Dr. Crandon Dr. Perry Dr. Crandon Dr. Sinmons Dr. Sinmons	Brackett, Dane, Gold. thwait, Thorndike, Sout- ter, and Adams	Address Prof. Bradford Dr. Lovett Dr. A. Thorndike	Dr. Soutter Dr. Brackett Drs. Dane and Adams Drs. Brackett, Dane, and)	D. Adams D. Jovett Dr. Brackett Dr. Goldthwait Dr. Osgood Dr. Osgood Dr. Newell
SUBJECT.	72. Diseases of Rectum and Anus 73. Minor Surgery, 2 courses 74. Minor Surgery, 4 courses 75. Minor Surgery, 3 courses 77. General Surgery of Children, 8 77. General Surgery of Children, 8 77. courses		18. Subged Dignostic Radiology, courses 80. Major Oper, Technique on Animals 82. Genico-Urinary Surgery, 2 courses 83. Genito-Urinary Surgery, 2 courses 84. Genito-Urinary Surgery, 2 courses		85. Gentico-Unitary Surgery in Amou- latory Cases 86. Genito-Urinary Diseases, 3 courses 87. Pathology of the Prostate 88. Surgical Pathology 89. Surgical Pathology		91. Research and Special Work in 92. Orthopedic Surgery, 2 courses 93. Pott's Disease 2 courses 94. Pott's Disease 2 courses 94. Pott surgery, 2 courses 95. Pott's Disease 2 courses	95. Orthopedic Surgery, 2 courses 95. Orthopedic Surgery, 2 courses 96. Deformities, 2 courses 97. Deformities, 9 courses	

Special.	25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
Oct.—May Special Oct.—Jan. and May Peb.—Apr. Jan.—Mar. Oct., Dec., and Jan. Special Oct., Nov. Oct.—May Oct.—May Oct.—May	Feb.—May Special Special Special Special Special Nov.—Jan. Special Nov.—Jan. Special Oct., Nov. Special
6 : 221 : 122 : 44 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
Medical School Boston Lying-in Hospital Boston City Hospital Boston Dispensary St. Elizabeth's Hospital Boston City Hospital Mass. General Hospital Boston Dispensary Mass. General Hospital	Boston City Hospital Medical School Selv. Mass. Gen. & Long Island Hospital Mass. General Hospital Danvers Hospital Byc and Ear Infirmary Medical School Eye and Ear Infirmary Medical School Eye and Ear Infirmary """ """ Boston City Hospital Mass. General Hospital Boston City Hospital Boston City Hospital Boston City Hospital Children's Hospital
Prof. C. M. Green Drs. Swein, Friedman, and Torbort Dr. Green Dr. Storer Dr. Friedman Prof. McCollom, Prof. McCollom Prof. McCollom Prof. McCollom Prof. Bowen and Dr. White Dr. Post Dr. Cost Dr. Explor, and Waterman Dr. Storer	Dr. Mnapp Dr. Taylor Dr. Taylor Dr. Taylor Dr. Taylor and Waterman Dr. Barrett Dr. Cowles Dr. Hammond Dr. Jack Dr. Guackenboss Dr. Guackenboss Dr. Spalding Dr. A. Cooligge Dr. T. C. Cobb Dr. T. C. Cobb Dr. T. C. Cobb Dr. T. C. Cobb Dr. T. Colidge Dr. T. C. Cobb Dr. T. C. C
104. Operative Obstetries, 8 courses 105. Clinical Obstetrie Service 106. Gynaecology 107. Gynaecology 108. Gynaecology 109. Gynaecology 110. Gynaecology 111. Pediatries 113. Dernatology, 4 courses 114. Advanced Dermatology, 4 courses 115. Syphilis, 3 courses 116. Syphilis, 3 courses 117. Advanced Clinical Neurology	111. Normal Anat. of Nervous System 1119. Path. Anat. of Nervous System 1119. Advanced General Neurology 122. Celinical Neurology 123. October 123. Psychiatry 124. Anatomy of the Ear 125. Ophthalmology 126. Ophthalmology 127. Ophthalmology 128. Ophthalmology 129. Ophthalmology 131. Rhinology and Laryngology 132. Rhinology and Laryngology 132. Rhinology and Laryngology 133. Rhinology and Laryngology 133. Rhinology and Laryngology

* Time includes months named. When time and fee are "special," arrangements must be made with the instructor. † Women admitted.

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1905.

1 3				No. of	No. of		F		1
100	Subject	Instructor	Flace	Exer-	Begins	Ends	Days	Hour	Fee
-	Anatomy of Nose and Throat	Dr. Mosher	Medical School	12	:		Special		\$25
¢1	Anat. of male genito-urinary organs Dr. Davis	Dr. Davis	Medical School	5			Special		25
က	An. of female genito-urinary organs Dr. Wadsworth	Dr. Wadsworth	Medical School	0.0	:		Special		20
+	Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	8-9			Special	:	25
20	Histology	Dr. Lewis	Medical School	24	June 26 July	July 28	28 Mo. Tu. W. T. F.	10	*07
9	Embryology	Dr. Lewis	Medical School	24	June 26 July		28 Mo. Tu. W. T. F.	61	*05
1	Physiology	Prof. Porter	Medical School	30	June 26	26 July 29	Daily	9-5	*0*
00	Physiological Chemistry	Dr. Emerson	Medical School	20	July 3	3 July 28	Mo.Tu.W.T.F.	11	20
6	Urinary Analysis	Dr. Emerson	Medical School	20	July 3	3 July 28	28 Mo.Tu.W. T.F.	11	20
10	Adv. Physiol. and Pathol. Chem.	Dr. Emerson	Medical School				Special	:	:
11	Pathology	Prof. Mallory	City Hospital	41	July 3	Aug. 19 Daily	Daily	1-6	20
12	Pathology	Dr. Magrath	Med. Sch., Carney and L. I. Hosp.	40	July 5	5 Aug. 19 Daily	Daily	93-2	35*
13	Bacteriology	Dr. Page	Medical School	25	July 3	3 Aug. 4	Mo.Tu.W.T.F.	50	30*
17	Bacteriology	Dr. Perry	Medical School	25	Aug. 7	Sept. 8	Mo.Tu.W.T.F.	3.15	30*
15	Public Health Bacteriology	Dr. Hill					Special		:
16	Infect. Dis. of Animals	Dr. Frothingham	Medical School				Special	:	30*
17	Hygiene	Prof. Harrington and Dr. Walker	Medical School	30	July 5	Aug. 16	5 Aug. 16 Mo.Tu.W.T.F.	:	50*
18	18 Clinical Medicine	Dr. Vickery	Mass. Gen. Hosp.	13	July 3	July 31	3 July 31 Mo. We. Fr.	10-11	15

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15	20*	20	30*	30*	25	25	*07	30*	30*	30*	*07	20*	15*	15*	30*	20	20	*22*	25*	\$00*	*62
10-11	10	10	9-1	9-1	10-12	10-12	9-12	81-12	00 10 10	$8\frac{1}{2} - 12$	10-12	10-12	7	7 22	10-15	10	10	9-1	9-1	111	3-5
Aug. 2 Aug. 30 Mo. We. Fr.	July 6 Aug. 19 Tu. Th. S.	Aug. 1 Aug. 31 Tu. Th. S.	Aug. 1 Aug. 31 Daily	Sept. 1 Sept. 30 Daily	Aug. 1 Aug. 31 Tu. Th. F.	Sept. 1 Sept. 29 Tu. Th. F.	June 1 June 30 Daily	July 3 July 31 Daily	Aug. 1 Aug. 31 Daily	Sept. 1 Sept. 30 Daily	July 5 Aug. 16 Mo. We. Fr.	Aug. 18 Sept. 29 Mo. We. Fr.	July 10 July 21 Mo.Tu.W.T.F.	Sept. 4 Sept. 15 Mo.Tu.W.T.F.	Sept. 1 Sept. 30 Daily	June 1 June 23 Daily	Sept. 1 Sept. 23 Daily	June 1 June 30 Daily	July 3 July 31 Daily	July 6 Aug. 19 Tu. Th. S.	July 3 July 31 Mo.Tu.W.Th.
Α	20 J	14 A	. ·				26 J	F	4		19 J	20 A	10	10		20 J		P	F	20	17 J
Mass. Gen. Hosp.	City Hospital	City Hospital	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Mass. Gen. Hosp.	Boston Dispensary	Boston Dispensary	Mass. Gen. Hosp.	Mass. Gen. Hosp.	City Hospital	City Hospital	City Hospital	Mass. Gen. Hosp.	Mass. Gen. Hosp.	City Hospital	M. G. H. & H. M. S.
Dr. Vickery	Dr. II. Jackson	Dr. Bartol	Dr. R. C. Cabot	Dr. R. C. Cabot	Dr. W. H. Smith	Dr. W. H. Smith	Dr. W. H. Smith	Dr. Pratt	Dr. Pratt	Dr. Pratt	Dr. Musgrave	Dr. Musgrave	Dr. Musgrave	Dr. Musgrave	Dr. Locke	Dr. Libby	Dr. Libby	Dr. Lord	Dr. Lord	Dr. Palfrey	Drs. Richardson, Mead, M.G. H. & H. M.S. Musgrave, Lord, Alsberg
Clinical Medicine	Clinical Medicine	Clinical Medicine	Physical Diagnosis	Physical Diagnosis	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Cytodiagnosis	Cytodiagnosis	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Clinical Medicine	Laboratory Course	Combined Laboratory Course
19	50	52	55	23	24	25	26	27	58	29	30	31	32	33	34	35	36	37	80	39	40

* Open to women.

41 Combined Laboratory Course Drs. Richardson, Lord, Alsery Alsery M.G. H. M.S. 18 Aug 42 General Surgery Dr. Muscrave, Smith, & Mass. Gen. Hosp. 24 Jun 43 Major Surgery Dr. Mumford Mass. Gen. Hosp. 24 Jun 45 Major Surgery Dr. J. B. Blake City Hospital 12 Jun 45 Major Surgery Dr. J. B. Blake City Hospital 12 Jun 45 Major Surgery Dr. Lund City Hospital 12 Jun 45 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Jun 50 Major Surgery Dr. Jones Mass. Gen. Hosp. 24 Jun 51 Major Surgery Dr. Hubbard City Hospital 12 Jun 52 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Jun 53 Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 24 Aug 54 Out-patient and Minor Surgery Dr. Crand	No.	Subject	Instructor	Place	No. of Exer- cises	No. of Exer. Begins cises	Ends	Days	Hour	Fee
General Surgery Dr. Munro Carney Hospital 24 Major Surgery Dr. J. B. Blake City Hospital 12 Major Surgery Dr. J. B. Blake City Hospital 12 Diseases of the Rectum Dr. Faulkner City Hospital 24 Operative Surgery Dr. Lund City Hospital 24 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Major Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27		Combined Laboratory Course	Drs. Richardson, Lord, Musgrave, Smith, & Alsberg	M. G. H. & H. M. S.	18	Aug. 1	Aug. 31	1 Aug. 31 M. Tu. W. Th.	3-5	*55
Major Surgery Dr. Seudder & Mass. Gen. Hosp. 24 Major Surgery Dr. Mumford Mass. Gen. Hosp. 48 Major Surgery Dr. J. B. Blake City Hospital 12 Diseases of the Rectum Dr. Lund City Hospital 24 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Operative Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27		General Surgery	Dr. Munro	Carney Hospital	24	:		Daily	9-12	25
Major Surgery Dr. Munford Mass. Gen. Hosp. 48 Major Surgery Dr. J. B. Blake City Hospital 12 Abdominal Surgery Dr. Lund City Hospital 24 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Operative Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27	-	Major Surgery	Drs. Scudder & Greenough	Mass. Gen. Hosp.	24	June 1	Sept.	30 Daily	9-1	30*
Major Surgery Dr. J. B. Blake City Hospital 12 Diseases of the Rectum Dr. Lund City Hospital 24 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Operative Surgery Dr. Junes Mass. Gen. Hosp. 24 Major Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27		Major Surgery	Dr. Mumford	Mass. Gen. Hosp.	48	June 1	Sept.	30 Mo. We.S.	9-11	30
Diseases of the Rectum Dr. Faulkner City Hospital 12 Abdominal Surgery Dr. Lund City Hospital 24 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Major Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27		Major Surgery	Dr. J. B. Blake	City Hospital	12	une 1	Sept. 30	Mo. We. Fr.	10-12	25
Abdominal Surgery Dr. Lund City Hospital 24 Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Operative Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27		Diseases of the Rectum	Dr. Faulkner	City Hospital		July 1	Sept. 3.	Tu. Th. Sat.	10-12	50
Operative Surgery Dr. Jones Mass. Gen. Hosp. 24 Major Surgery Dr. Hubbard City Hospital 12 Major Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Hubbard City Hospital 12 Minor Surgery Dr. Brewster Mass. Gen. Hosp. 24 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient and Minor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Out-patient Surgery Dr. Crandon City Hospital 27 Out-patient Surgery Dr. Crandon City Hospital 27		Abdominal Surgery	Dr. Lund	City Hospital	24	Aug. 1	1 Oct. 1	1 Mo. We. Fr. or Daily		52*
Dr. Jones Mass. Gen. Hosp. 24 Dr. Hubbard City Hospital 12 Dr. Hubbard City Hospital 12 Dr. Brewster Mass. Gen. Hosp. 24 Dr. Brewster Mass. Gen. Hosp. 24 Or. Farrar Cobb Mass. Gen. Hosp. 26 Or. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Crandon City Hospital 27 Dr. Crandon City Hospital 27		Operative Surgery	Dr. Jones	Mass. Gen. Hosp.	24	June 1	I July 31	31 No. We. Fr. or Tu. Th. Sat.	6	20
Dr. Hubbard City Hospital 12 Dr. Hubbard City Hospital 12 Dr. Brewster Mass. Gen. Hosp. 24 Dr. Brewster Mass. Gen. Hosp. 24 or Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Craudon City Hospital 27 Dr. Craudon City Hospital 27		Operative Surgery	Dr. Jones	Mass. Gen. Hosp.	24	Aug. 1	Sept.	30 Mo. We. Fri. or Tu. Th. Sat.	6	50
Dr. Hubbard City Hospital 12 Dr. Brewster Mass. Gen. Hosp. 24 Dr. Brewster Mass. Gen. Hosp. 24 Or. Farrar Cobb Mass. Gen. Hosp. 26 Or. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Crandon City Hospital 27 Dr. Crandon City Hospital 27		Major Surgery	Dr. Hubbard	City Hospital		June 1	1 June 30		9-11	20
Dr. Brewster Mass. Gen. Hosp. 24 Dr. Brewster Mass. Gen. Hosp. 24 oor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Craudon Gity Hospital 27 Dr. Craudon City Hospital 27		Major Surgery	Dr. Hubbard	City Hospital	12	July 1	1 July 31		9-11	50
In. Brewster Mass. Gen. Hosp. 24 for Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 for Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 20 Dr. Craudon City Hospital 27 Dr. Craudon City Hospital 27		Minor Surgery	Dr. Brewster	Mass. Gen. Hosp.	24	June 1	July 31	Daily	10-13	25
for Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 nor Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Craudon City Hospital 27 Dr. Craudon City Hospital 27		Minor Surgery	Dr. Brewster	Mass. Gen. Hosp.	24	Aug. 1	Sept.	30 Daily	10-12	25
Or. Surgery Dr. Farrar Cobb Mass. Gen. Hosp. 26 Dr. Crandon City Hospital 27 Dr. Crandon City Hospital 27		Out-patient and Minor Surgery	Dr. Farrar Cobb	Mass. Gen. Hosp.		July 1	1 Aug. 1 Daily	Daily	10-12	15
Dr. Craudon City Hospital 27 Dr. Craudon City Hospital 27		Out-patient and Minor Surgery	Dr. Farrar Cobb	Mass. Gen. Hosp.		Aug. 1	Aug. 31	31 Daily	10-12	15
Dr. Crandon City Hospital 27		Out-patient Surgery	Dr. Crandon	City Inospital		July 1	1 July 31	31 Daily	9-15	¥05
	22	Out-patient Surgery	1	City Hospital		Aug. 1	Aug. 1 Aug. 31 Daily	Daily	9-12	*05

89	S Gen. Surgery of Children	Drs. Stone and Vincent Children's Hosp.	Children's Hosp.	30	July	1 July	31 1	31 M. Tu. W. F. S.		20%	
69	Gen. Surgery of Children	Drs. Stone and Vincent Children's Hosp.	Children's Hosp.	30	Aug.	Aug. 1 Aug.	81	31 M. Tu. W. F. S.		*07.	
99	Gen. Surgery of Children	Drs. Stone and Vincent	Children's Hosp.	30	Sept.	4 Sept.	30	M. Tu. W. F. S.	:	20*	
19	Fractures	Dr. Cotton	City Hospital	20	June 1	16 Aug.	11	1 Tu. Th. Sat.	9-10	30	
62	Fractures	Dr. Cotton	City Hospital	20	Sept.	1 Sept.	30 I	30 Tu. Th. Sat.	9-10	30	
63	Fracture Course	Dr. Crandon	City Hospital	20	July	1 Aug.	16 1	Aug. 16 Mo. We. Fr.	10-11	20*	
19	Surgical Diagnostic Radiology	Dr. Brown	Children's Hosp.	16	June	1 Sept.	30 1	30 Mo. Tu. We. S.	4-6	20*	
65	Surgical Diagnostic Radiology	Dr. Brown	Carney Hospital	12	June	1 Sept.	30	30 Mo. We. Fr.	11-1	15	
99	Surgical Pathology	Dr. Simmons	Mass. Gen. Hosp.	18	June 1	19 July	28	Mo. We. Fr.	10-12	25	
67	Orthopedic Surgery	Prof. Bradford & Assts.	Chil. Hosp. & H.M.S.	32	July	1 July		31 Daily	:	25*	
68	Orthopedic Surgery	Prof. Bradford & Assts. Chil. Hosp. & H.M.S.	Chil. Hosp.& H.M.S.	32	Aug.	1 Aug. 31 Daily	31 I	aily	:	*22*	
69	Orthopedic Surgery	Dr. Lovett	Children's Hosp.	18	July	1 Aug. 15	15 T	Tu. Sat.	:	25*	
10	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	June	2 June	30	Mo. We. Fr.	6	25*	
7.1	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	July	1 July	31	Mo. We. Fr.	6	25*	
72	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	Aug.	1 Aug	31	Mo. We. Fr.	6	*22	
73	Orthopedic Surgery	Dr. Goldthwait	Carney and M.G.H.	12	Sept.	1 Sept.	30	Mo. We. Fr.	6	25*	
74	Orthopedic Surgery	Drs. Brackett and Dane Children's Hosp.	Children's Hosp.	12	July	3 Aug.	14 1	3 Aug. 14 Mo. Wed.	C. C	20	
75	Genito-Urinary Surgery	Dr. Watson	City Hospital	13	June	1 June	29 T	29 Tu. Th. Sat.	11-12	25	
92	Genito-Urinary Surgery	Dr. Thorndike	City Hospital	24	July	1 Sept.	1 1	1 Tu. Th. Sat.	10-12	15	
11	Non-operative Genito-Urinary Surg. Drs. Cotton and Perry	Drs. Cotton and Perry	Dispensary	24	Aug.	1 Aug.		31 Daily	$9\frac{1}{2} - 10\frac{1}{2}$	20	
48	Genito-Urinary Diseases	Dr. Perry	Dispensary	25	June	1 June	30 I	30 Daily	$9\frac{1}{2} - 12\frac{1}{2}$	20	
79	Genito-Urinary Diseases	Dr. Perry	Dispensary	25	July	1 July		31 Daily	$9\frac{1}{2} - 12\frac{1}{2}$	20	•
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* Open to women.

2	Subject	Instructor	Place	No. of	No. of Exer. Begins	Ends	Days	Hour	Fee
1		10000 40000		cises			,]	1
80	Genito-Urinary Diseases	Dr. Perty	Dispensary	25	Sept. 1	Sept. 30 Daily	Daily	$9\frac{1}{2} - 12\frac{1}{2}$	\$20
25	Genito-Urinary Surgery	Dr. Crandon	City Hospital	26	Sept. 1	1 Sept. 30 Daily	Daily	9-12	20
88	Surgical Pathology of Prostate	Dr. Crandon	City Hospital	12	Sept. 1	Sept. 15 Daily	Daily	10-12	25
83	Clinical Obstetrics — Practical Course	Dr. Swain, assisted by Drs. Friedman & Torbert	Lying-in Hospital	:	May 1	1 Oct. 1	1 Daily	:	30
78	Clinical Obstetrics	Dr. Swain	Lying-in Hospital		July 1	I July 31	31 Mo. We. Fr.	11	50
85	Clinical Obstetrics	Dr. Friedman	Lying-in Hospital	:	Aug. 1	Aug. 31	Mo. We. Fr.	11	20
86	Clinical Obstetrics	Dr. Torbert	Lying-in Hospital		Sept. 1	Sept. 30	Mo. We. Fr.	11	20
00	Operative Gynaecology	Dr. Storer	Carney Hospital	12	Apr. 1	1 Oct. 1	2 days a week		25*
80	Clinical and Operative Gynaecology Dr. Newell	Dr. Newell	City Hospital	:	July 1	July 31	Tu. Th. Sat.	9-11	25
89	Clinical and Operative Gynaecology Dr. Newell	Dr. Newell	City Hospital	:	Aug. 1	Aug. 31	Tu. Th. Sat.	9-11	25
06	Clinical and Operative Gynaecology Dr. Young	Dr. Young	City Hospital		Sept. 1	Sept. 30	Tu. Th. Sat.	9-11	25
91	Minor Gynaecology	Dr. Friedman	City Hospital	:	July 1	1 July 31	Tu. Th. Sat.	9-11	20
9.5	Minor Gynaecology	Dr. Friedman	City Hospital		Aug. 1	Aug. 31	Tu. Th. Sat.	9-11	20
93	Minor Gynaecology	Dr. Friedman	City Hospital		Sept. 1	Sept. 30	Tu. Th. Sat.	9-11	50
94	Pediatrics	Dr. Morse	Infants' Hospital	13	June 2	June 29	2 June 29 Mo. We. Fr.	113	200*
95	Pediatrics	Dr. Dunn	Infants' Hospital	13	July 3	3 July 31	Mo. We. Fr.	11	20*
96	Pediatries	Drs. Morse and Dunn	Ch. Hos. & Inf. Hos.	:	Aug. 1	1 Aug. 31	Daily	:	\$0\$
16	Pediatries	Drs. Morse and Dunn	Ch. Hos. & Inf. Hos.		Sept. 1	Sept. 30	Daily		20*
98	Dermatology	Prof. Bowen	Mass. Gen. Hosp.	13	June 1	1 June 29	Mo. We. Th.	10-11	25
66	Dermatology	Dr. White	Mass. Gen. Hosp.	12	July 3	July 31	3 July 31 (Mo.) Tu. Th. F.	16	05
100	Downstology	Dr. White	Mass. Gen. Hosp.	14	Aug. 1	Aug. 31	1 Aug. 31 Tu. Th. Fr.	93	*07

Syl	Syphilis	Dr. Post	Dispensary	18	June	5 July 1	4 Mo.	14 Mo. We. Fr.	11-124	25	
Syphilis	illis	Dr. Post	Dispensary	10 P	July 14	Aug. 3	O Mo.	14 Aug. 30 Mo. We. Fr.	$11 - 12\frac{1}{2}$	25	
Ocul	Ocular Symptoms in Gen'l Diseases Dr. Standish	Dr. Standish	Eye and Ear Inf.	14	June 1	July	1 Tu.	1 Tu. Th. Sat.	6	30*	
Opht	Ophthalmology	Dr. Jack	Eye and Ear Inf.	15	Aug.	Sept. 3	10 Tu.	30 Tu. Th. Sat.	10	30	
Oph	Ophthalmology	Dr. Quackenboss	Eye and Ear Inf.	24	Aug.	2 Sept. 2	3 Mo	23 Mo. We. Fr.	9-12	25 w	
Oph	Oplithalmology	Dr. Spalding	Long Isl., E. & E. I.	12	July	3 July 2	8 Mo.	28 Mo. We. Fr.	6	25*	
Otology	ogy	Prof. Blake	Eye and Ear Inf.	12	June 1	1 June 2	7 Tu.	27 Tu. Th. Sat.	10-12	25*	30:
Clin	Clinical Otology	Dr. Hammond	Eye and Ear Inf.	24	June 1	June 30 Daily	0 Dai	ly	9-11	25*	11 .01 8
Clin	Clinical Otology	Dr. Hammond	Eye and Ear Inf.	26	July	July 3	30 Daily	ly	9-11	25*	c.iv
Ana	Anatomy of the Ear	Dr. Wales	Medical School	13	July	1 July 2	9 Mo.	29 Mo. We. Fr.	9-11	*62	COI
Nen	Neurology	Dr. E. W. Taylor	H. M. S. & Long Isl.	20	July	5 Aug.	5 Tu.	5 Tu. We. Th. S.	6	30*	. No
Ana	Anatomy of Central Nervous System Dr. E. W. Taylor	Dr. E. W. Taylor	Medical School	15	July		Mo	Mo. We. Fr.	7	25	Eo.
Nen	Neurolog. Dis. connected with the eye Dr. Waterman	Dr. Waterman	Mass. Gen. Hosp.	4	Aug.	2 Aug. 1	11 We	We. Fr.	10-11	9	
Clin	Clinical Neurology	Dr. Waterman	Mass. Gen. Hosp.	12	July	3 July 2	28 Mo	Mo. We. Fr.	10-11	20	1 14.1
Clin	Clinical Neurology	Dr. Waterman	Mass. Gen. Hosp.	13	Aug.	2 Aug. 3	0 Mo	30 Mo. We. Fr.	10-11	20) (I)
Dise	Diseases of Nose and Throat	Dr. Farlow	City Hospital	12	June ?	2 June 2	28 Mo	Mo. We. Fr.	10	*07	AR
Lar	Laryngology	Dr. Clark	Mass. Gen. Hosp.	18	June]	1 July 1	I Tu.	II Tu. Th. Sat.	10	20*	V 1
Lary	Laryngology	Dr. Clark	Mass. Gen. Hosp.	18	July 1	17 Aug. 2	3 Mo	23 Mo. We. Fr.	10	*07	E, W
Lar	Laryngology	Dr. Clark	Mass. Gen. Hosp.	17	Aug. 2	23 Sept. 2	29 Mo.	Mo. We. Fr.	10	*07	•
Lar	Laryngology	Dr. Coffin	City Hospital	18	July	Aug. 1	1 Mo.	3 Aug. 11 Mo. We. Fr.	10-11	*07	
Lary	Laryngology	Dr. Coffin	City Hospital	18	Aug. 16	16 Sept. 2	25 Mo.	Mo. We. Fr.	10-11	*07	
Dise	Diseases of Nose and Throat	Dr. Mosher	Dispensary	18	July	3 Aug. 1	1 Mo.	Aug. 11 Mo. We. Fr.	10	*02	
Dise	Diseases of Nose and Throat	Dr. Mosher	Dispensary	18	Aug. 16	Sept. 2	5 Mo.	Aug. 16 Sept. 25 Mo. We. Fr.	10	*07	
	The state of the s		ALL PROPERTY OF THE PERTY OF TH	- Charles - Control of the Control o	The state of the same of			The same of the sa	-	-	

* Open to women.

TABULAR VIEW OF UNDERGRADUATE COURSES.

FIRST YEAR - First Half-Year

					F	S. Carrier D.
	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	October, January. Anatomy. L. Room C. November, December. Section A, Dissection. Rooms D and F. Section B, Histology. Lab. Room G.	October, January. L. Room C. Vorember, December. Histology. Lab. Room G.	Oct., Dec., Jan. Anatomy. L. Room C. November. Sect. A, Dissection. Rooms D and F. Sect. B, Histology. Lab. Room G.	Anatomy. I. Room C. November. November. Rooms D and F. Sect. A. Dissection. Rooms D and F. Sect. B. Histology L. December. Section A, Dissection. Rooms D and F. Section B, Histology. Lab. Room G.	n C. November. Histology L. Room C. Room S. Laber. Lab. Room G.	Anatomy, L. Room C.
10-1	Section A, Anaton Anatomy. 1st and	octo ny. Dissection. Roc d 3d weeks. Section	October, November, December. Section A, Anatomy. Dissection. Rooms D and F. Section B, Histology. Lab January. Anatomy. 1st and 3d weeks. Section A, Rooms D and F. Section B, Room G.	October, November, December. Section A, Anatomy. Dissection. Rooms D and F. Section B, Histology. Laboratory. Room G. January. Anatomy. 1st and 3d weeks. Section A, Rooms D and F. Section B, Room G.	atory. Room G.	Anatomy. L. Room C. 10-11. Histology. L. Room C.
	October. Histology. L. Room C.	October. L. Anatomy. L. Room C.	Coccool A, Noon C. Section D, Moons D and P. Doct., Nov., Dec. Histology. L. Room C. Room C.	October. Histology, L. Room C.	October. Anatomy. L. Room C.	1-11
2-3	November, December, January. Section A, Histology. Lab. Room Section B, Anatomy. Dissection. Ro	November, December, January. Section A, Histology. Lab. Room G. Section B, Anatomy. Dissection. Rooms D and F.	Sect. A. Hist. Lab. Room G. Sect. B. Dissection. Rooms D. and F.	November, December, January, Section A, Histology. Lab. Room G. sand F. Anatomy. Lab. Rooms D and F.	nber, January Lab. Room G. Lab. Rooms D	
	Section A, Histolc	Octo	October, November, December. m G. Section B, Anatomy. D	October, November, December. Bection A, Histology. Lab. Room G. Section B, Anatomy. Dissection. Rooms D and F.	s D and F.	
3-8	Anatomy. 1st and Anatomy. 2d and	1st and 3d weeks. Section 2d and 4th weeks. Section	January. Section A, Room G. Section B, Rooms D and F. Section A, Rooms D and F. Section B, Room G.	B, Rooms D and F. Section B, Room G.		

PHYSIOLOGY. FEBRUARY 1 TO JUNE 1.

Second Half-Year.

The programme in Physiology varies from day to day. It is illustrated by the following extract from the calendar published by the Department of Physiology at Harvard.

Date.		Laboratory Experiments, Rooms B and H. Special Demonstrations, Room A.	Μ	Written test (Rooms B and II); Conferences, Recitations, Systematic Lectures, and Theses (Room A).	nferences, Reciteses (Room A).	ations, Systematic
March	9	10.20-12. Blood.	9-9.30.	Lecture: Theories of coagula-	10-10.20. Wi	Written test.
*	100	10.20-12.15. Blood.	9.30-10.	QH		Vincence. Prof. Cannon. Written test. Thesis: Haemorrhane and re-
=	90	9.50-12.15. Blood.	9-9.30	_ Š	12.15-1. Th	generation of blood. Thesis: Haemolysis.
3	6	10.35-12.30. Secretion.	9.30-10.15.	written test. Lecture: The pressure theory of secretion. Prof. Porter. Thesis: Gland cells in rest and	10.15-10.35. Wi	Written test. Lecture: The chemical theory of secretion Prof Darrey
*	10	10.35-12.30. Respiratory exchange.	9-9.30	activity. Lecture: The mode of action 10.15-10.35, of secretory nerves. Prof. 12.30-1.		Written test. Lecture: Internal secretion of
			9.30-10.15.	Porter. Thesis: Internal secretion of	P C	thyroid, suprarenal body, and pituitary body. Prof. Porter.
2	H	11-12. Demonstration: The action of the chords tynpani and the sympathetic nerves on secretion by the submaxillary	9-9.45.	Thesis: Effect of food on the nature of the digestive secretions.	10-11. Re	Recitation. Prof. Bowditch.
3	13	gaara. Frot. Canton. 10.20-1. Metabolism.	9-9.30	Lecture: Exchange of gases between the air and the tis- sues. Prof. Porter.	9.30-10. Lecture co the co of the Porter 10-10.20 and 12-1.	9.30-10. Lecture: Effect of changes in the composition and tension of the respired gases. Prof. 10-10.20 and 12-1. Written test.
		PHYSIO	LOGICAL AN	PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY.		
2-3	60	Lecture. Monday, Tuesday, Thursday, and Friday. Room A. Laboratory.	y, and Frid		Wednesday.	
3-5.30	30	Laboratory. Daily except Saturday.				

SECOND YEAR. - First Half-Year.

	OCTOBER. NOVEMBER.	DECEMBER.		JANUARY.
9-12	Pathology. Laboratory. Daily. Section I, Room B. Section II, Room II.	Section I, Room B. II.	9-10	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.
12-1	Pathology. Lectures. Daily. Room C.	n C.	9-1	Tuesday, Thursday, and Saturday.
2-3	Bacteriology. Lectures. Daily except Saturdays. Room A.	Pathology of the Nervous System.	10,30-1	10.30-1 Monday, Wednesday, and Friday. 1 and 2 weeks. 3 and 4 weeks. Pathology. Pathology of
3-4		Laboratory, Southard. II. M. S.		Daily. Certain transmy Discusses. Sanith. Smith. Daily.
4-5	Bacteriology. Laboratory. Daily except Saturdays. Section I, Room II.			
5-6			2-2	Surgical Pathology. Laboratory. Nichols. H. M. S.

Second Half-Year.

	Monday.	TUESDAY.	Wednesday.	THURSDAY.	FRIDAY.	SATURDAY.
	м. с. п.	M. G. H.	В. С. И.	М. G. П.	M. G. II.	В.С. И.
O.	Clinical Medicine Clinic	Theory & Practice Clinic Cutler	Clinical Medicine Clinic Sears	Clinical Medicine Clinic Shattuck	Clinical Medicine Clinic Vickery	Clinical Medicine Clinic Jackson
10	Theory & Practice Clinic Cutler	Surgery Clinic M. H. Richardson	Surgery Clinic Lothrop	Theory & Practice Clinic Fitz	Surgery Clinic M. II. Richardson	Surgery Clinic J. B. Blake
11 12	SO.	Section Work				
73						
တ	Hygiene. L. Harrington Room A	Theory&Practice. L. Fitz Room E	Hygiene. L. Harrington Room A	Hygiene. L. Harrington Room A	Theory&Practice. L. Fitz Room E	
4	Surgery. L. Warren Room C	Pharmacology. L. Pfaff Room A	Pharmacology. L. Pfaff Room A	Surgery. L. Warren Room C	Pharmacology. L. Pfaff Room A	
ಬ	Surgical Technic of lectures Lothrop Room C	Surgery. L. Warren Room C			Surgery. R. Burrell Room C	
	The same of the sa					

THIRD YEAR. - First Half-Year.

SATURDAY.	Clinical Medicine Clinic Shattuck, M. G. II.	Theory and Practice Clinic Fitz, M. G. H.				Orthopedic Surgery Bradford II. M. S.	
FRIDAY.	Clinical Medicine Clinic Sears, B. C. H.	Pediatrics Clinical L. Rotch, C. II.			Theory and Practice L. Fitz Room E	Therapeutics. L. Pfaff Room E	Obstetries, R. Kewell Room E
THURSDAY.	Neurology Clinic Putnam, M. G. H.	Theory and Practice Clinic Fitz, M. G. II.	Section Work.		Obstetrics. I. W. L. Richardson Room E	Pediatrics. L. Rotch Room E	Surgery. R. Burrell Room C.
Wednesday.	Clinical Medicine Clinic Shattuck, M. G. H.	Dermatology Clinic Bowen, M. G. II.	Section		Obstetries Conference Green Room E	Surgery. L. Warren Room C	Opthalmology Standish Room E
TUESDAY.	Clinical Medicine Clinic Jackson. B. C. H.	Clinical Surgery Clinical L. Burrell, B. C. H.			Theory and Practice L. Fitz Room E	Dermatology. I., Bowen Room E. Syphilis. L. Post Room E. Room E.	Oct., Nor. GU. Surgery. L. Thorndike Room E
MONDAY.	Theory and Practice Clinic Cutler. M. G. II.	Surgery Clinic Warren M. G. II.			Obstetrics. L. W. L. Richardson Room E	Surgery. L. Warren Room C	Ophthalmology Standish Room E
	Class Erercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

Second Half-Year.

7. SATURDAY.	dicine Clinical Medicine Clinic Shattuck, M. G. H.	re. II. Theory and Practice cove St. Fitz, M. G. H. II.			y. L. Psychiatry Chnic Cowles, McL. II.	X	
FRIDAY.	Clinical Medicine Clinic Bartol, B. C. II.	Feb., Mar. Pediatrics Clinical I. Rotel, C. II. Morse, No. Grove St. Apr., May Sphilis Clinical I. Post, B. D.			Gynaecology. L. Green Room A	Obstetrics. R. Newell Room E	
THURSDAY.	Clinical Medicine Clinic Sears, B. C. II.	Clinical Surgery Clinical L. Barrell, Gay, or Monks, B. C. H.	Section Work.		Obstetrics. L. W. L. Richardson Room E	Laryngology Lecture Farlow, Room E	
WEDNESDAY.	Neurology Clinic Putnam, M. G. II.	Dermatology Clinic Bowen, M. G. H.	Section		Gynaecology L. or R. Green, Room E	Obstetries Conference Green, Room E	Clinical Medicine Case Teaching R. C. Cabot
TUESDAY.	Clinical Medicine Clinic Bartol B. C. H	Clinical Surgery Clinical L. Burrell, B. C. II.			Otology Lecture Blake, Room A	Pediatrics. L. & R. Rotch, Morse Room E	Clinical Medicine Case Teaching R. C. Cabot
Monday.	Neurology Clinic Putnam, M. G. H.	Surgery. Clinic M. H. Kichardson M. G. H.			Obstetries. L. W. L. Richardson Room E.	Pediatries. L. & R. Rotch, Morse Room E	
	Class Exercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

DEGREES.

On March 8, 1905, degrees were conferred as follows:-

M.D.

Frederick Francis Andrews.
Leonard Allen Baker.
Elmer Louis Brine.
Percy Whitman Carr.
William Edward Eaton.
William Francis Farmer.
Henry Lawrence Flynn.
Frederic Wade Hitchings.

Thomas Francis Kenney.
Roland Otto Meisenbach.
Gordon Niles Morrill.
George Osgood.
Harry Merton Page.
Edwin Pliny Seaver, Jr.
Ralph Edgarton Stone.

M. D. (Out of course.)

Frank Robert Wheelock, as of the Class of 1904. John Albion Young, Ph.B. (*Brown Univ.*) 1900, as of the Class of 1904.

On Commencement Day, June 28, 1905, degrees were conferred as follows:—

M.D.

Gerald Blake, A.B. 1901.

Jeremiah Joseph Boyle.

Robert Hartley Brooks, A.B. (Dartmouth Coll.) 1900.

Clarence Edmund Bryant, B.L. (Dartmouth Coll.) 1901.

Fenner Albert Chace, A.B. 1897.

Hilbert Francis Day, Ph.B. (Yale Univ.) 1901.

Ernest Washburn Emery, A.B. (Bates Coll.) 1892.

Carl Fisher, s.B. (Carleton Coll.) 1901.

Roy Hawkes Gilpatrick, A.B. (Yale Univ.) 1901.

William Goodell, A.B. (Amherst Coll.) 1901.

Henry Matthew Grady.

Joseph James Hagerty.

William Clinton Hanson, A.B. 1899.

George Kelsea Hildreth, A.B. (Dartmouth Coll.) 1900.

Henry Ambrose Hoit.

George Hopkinson, A.B. (Brown Univ.) 1896.

Frank Wheeler Hornbrooke, PH.B. (DePauw Univ.) 1899.

Jeremiah Joseph Lowney.

Norman Murray MacLeod, A.B. 1902.

Eugene Leo Maguire, A.B. (Dartmouth Coll.) 1901.

Francis Xavier Mahoney, M.D.v. 1892.

Charles Henry Merrill, A.B. (Dartmouth Coll.) 1901.

Malcolm Dean Miller, A.B. 1901.

Charles Leo Moran, A.B. 1902.

James Cornelius Murphy, A.B. (Boston Coll.) 1901.

Nathaniel Leo Niles, Ph.B. (Brown Univ.) 1899.

John Henry O'Shea, A.B. (Gonzaga Coll.) 1901.

Thomas Melville Proctor, A.B. (Amherst Coll.) 1901.

Carlisle Reed, s.B. 1902.

Edward Lawrence Salmon.

Timothy Joseph Shanahan, A.B. (Dartmouth Coll.) 1901.

Alfred Willard Southgate, A.B. (Amherst Coll.) 1901.

Roy Sumner Stearns, s.B. (Middlebury Coll.) 1901.

Thomas Andrew Storey, Ph.D. (Leland Stanford Jr. Univ.) 1902.

Nathan Pulsifer Thayer, A.B. (Colby Coll.) 1901.

William Wright Walcott, s.B. (Mass. Inst. of Tech.) 1901.

James Knight Wardwell, A.B. (Williams Coll.) 1901.

Joseph Palmer Watts.

Mark Hunking Wentworth, 2d, A.B. 1901.

Eugene Dizer Whitehouse.

Nye Clinton Whiting.

John Edward Wilson, A.B. (Dartmouth Coll.) 1901.

M. D. cum laude.

Charles Waldron Adams, A.B. 1901. George Samuel Amsden, A.B. 1901. Sylvester Judd Beach, A.B. 1901. William Parsons Boardman, A.B. 1902.

Harrison Ayer Chase, PH.B. (Brown Univ.) 1901.

Harold Ward Dana, A.B. 1900. Edward John Denning, A.B. 1901.

Richard Dexter, A.B. 1901.

Theodore Jewett Eastman, A.B. 1901.

Albert Ehrenfried, A.B. 1902.

Nathaniel Wales Faxon, A.B. 1902. William Leland Holt, A.B. 1901.

Charles Wentworth Hoyt, A.B. 1902.

Roger Irving Lee, A.B. 1902.

William Charles McLaughlin, A.B. (Brown Univ.) 1901.

Harvey Field Newhall, A.B. 1901, а.м. 1902.

Thomas Ordway, A.B. 1900, A.M. 1901.

Charles Leonard Overlander, PH.C. (Univ. of Kansas) 1898, PH.B. (Yale Univ.) 1901.

Allen Galpin Rice, A.B. 1902.

George Cheever Shattuck, A.B. 1901.

Benjamin Ernest Sibley, A.B. (Wesleyan Univ.) 1898.

Henry Randolph Storrs, A.B. 1896. Fritz Bradley Talbot, A.B. 1900.

James Lyman Whitney, A.B. (Yale Univ.) 1901.

Wyman Whittemore, s.B. 1901.

EXAMINATION PAPERS.

(Annual Examinations, 1905.)

First Year Studies.

ANATOMY. - Professor Dwight.

Answer the questions as briefly as possible.

- 1. Of what bone is the olecranon a part? With what does it articulate? What important muscle runs to it?
- 2. Describe the odontoid process. What important ligaments spring from it?
- 3. With what bones does the astragalus articulate?
- 4. What bones constitute the innominate bone? Where do they meet?
- 5. What muscles compose the flexor-pronator group of the forearm?
- 6. What arteries form the circle of Willis?
- 7. What veins form the portal vein? Where does it go? What structures are with it?
- 8. How does the facial nerve leave the skull? What does it supply?
- 9. What structures are supplied by the anterior crural nerve?
- 10. What are the limits of the sigmoid flexure? What are its peritoneal relations?
- 11. What are the surfaces of the spleen? In which is the hilum?
- 12. What and where is the corpus callosum?
- 13. What and where is the optic thalamus?
- 14. How much of the execum and ascending colon is covered with peritoneum?
- 15. What are the chief differences between the two bronchi?
- 16. Give the boundaries of the foramen of Winslow.
- 17. What are the relations of the pulmonary artery and the aorta?
- 18. What is the course of the vas deferens?
- 19. What structures are in the broad ligament of the uterus?
- 20. How are the ossicles of the ear arranged? What are their relative positions?

HISTOLOGY. - Professor MINOT.

[Each student is given four sections to correspond with the first four questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparation, will be considered to have failed in all his answers.]

1. Draw and describe a Purkinje's cell. Describe briefly the neuraxon of a Purkinje's cell.

- 2. Describe and draw the section, and the tissues found in it, stating from which germ layer each tissue is formed.
- 3. Make a topographical drawing of the section and name the principal structures shown by the section. From what part of the organ is the section taken? What is the plane of the section.
- 4. Draw and describe the sinusoids in the section. What are the principal organs in which sinusoids occur?
- 5. How does the blood pass from the foetal heart to the placenta and back to the heart?
 - 6. Give a brief account of the development of the uterus.

PHYSIOLOGY. - Professor W. T. PORTER.

[Answer any three questions, but not more than three. Mention, where possible, experimental evidence in support of your opinion. Matter not bearing directly on the question asked will count against the writer.]

- 1. Discuss coagulation.
- 2. Describe in full any highly developed reflex mechanism, for example that governing micturition.
 - 3. State the evidence for the chemical theory of secretion.
 - 4. Discuss the analysis of sounds by the ear.

PRACTICAL EXAMINATION IN PHYSIOLOGY.

- [Each student is required to make four of the six experiments drawn by him, and to write an account of his observations on the blank furnished herewith. Where the results of the experiments are not expressed in a graphic record they must be demonstrated to the instructor.]
- 1. Record the action of the sympathetic on the heart. Demonstrate the progressive spreading of impulses in the central nervous system. Record curves showing the influence of changes in the aortic pressure on the interval between the beginning of ventricular contraction and the opening of the semilunar valves (in the artificial scheme).
- 2. Demonstrate that the cardiac systole is a simple and not a tetanic contraction. Show the influence of load on the work done by the skeletal muscle. Show where the more complicated coördinated reflex acts have their centres.
- 3. Show evidence that the ventricular contraction wave may be transmitted by muscular tissue. Prove that the excitability of a nerve is altered in the neighborhood of the anode and the cathode during the passage of the galvanic current. Secure a record of the effect of duration of stimulus on smooth muscle.
- 4. Furnish experimental evidence for an explanation of the auriculoventricular interval. Prove that the galvanic current stimulates during the whole time of its passage through an irritable tissue. Demonstrate the influence of increased load on ventricular contraction.
- 5. Prove the existence of tonic contraction of muscle. Demonstrate the current of action in muscle or nerve. Give experimental evidence that the vagus connects with the nerve cells in the heart.

- 6. Demonstrate polar stimulation by the galvanic current. Show the vasomotor functions of the spinal cord. Demonstrate the inhibition of reflex action in the frog.
- 7. Show the function of the anterior spinal nerve-roots. Record with the artificial scheme pulse curves of low arterial tension and high arterial tension, and discuss their method of production. Contrast diagrams showing the formation of the image (1) in myopia, (2) in hypermetropia, (3) in hypermetropia with a correcting lens.
- 8. Record the effect of inhibition of the heart on arterial pressure in the frog. Demonstrate on muscle the different effect of sudden and of gradual increase in intensity of stimulus. Prove the discontinuous nature of tetanic contraction.
- 9. Record the effect of stimulation of the vagus on the beat of the ventricle. Show that all contractions of heart muscle are maximal. Give experimental evidence that a nerve fibre may conduct impulses in both directions.
- 10. Show by diagram the method of determining the size of a retinal image. Demonstrate the limits of the refractory period and the existence of the compensatory pause. Prove that the demarcation current (current of injury) may act as a stimulus.
- 11. Record curves showing the influence of temperature on the contraction of skeletal muscle. Demonstrate differences in the physiology of smooth and striated muscle. Show that the control of movements is localized at different levels of the spinal cord.
- 12. Show that a constant stimulus may cause periodic contraction Show the influence of fatione on muscular contraction. Draw a construction showing the formation of the image in the indirect method of observing the retina.
- 13. Show the segmental arrangement of the reflex apparatus. Draw a diagram showing the course of the rays in astigmatism. Show the influence of an increase in peripheral resistance on the blood pressure in the frog.
- 14. Prove the independent irritability of muscle. Show experimenta proof of the law of contraction with weak, medium, and strong ascending currents. Demonstrate with the artificial thorax the relations between pulmonary and intra-thoracic pressure during inspiration and expiration State these relations in writing, with diagrams.
- 15. Compare an isometric contraction with an isotonic contraction Obtain from the artificial scheme of the circulation a characteristic pulse curve of aortic regurgitation and explain its production. Demonstrate and discuss the apparent purpose in reflex action.
- 16. Demonstrate that the physiological anode and cathode may differ from the physical poles. Prove that oxidation may be caused by anima tissue. Demonstrate the influence of the sympathetic nerve on the iris of the frog.
- 17. Demonstrate polar inhibition. Demonstrate the importance of the nucleus in intracellular oxidations. Prove that tonic and simple contractions of the same tissue may occur at the same time.

PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY. Professor Wood.

- 1. Describe the proteids occurring in muscle.
- 2. What are the characteristic differences between nucleic and pseudonucleic acids?
- 3. Enzymes what are they? How classified? What conditions influence their activity?
 - 4. Describe hemoglobin its compounds and derivatives.
- 5. What are the sources of sulphur in the economy? In what forms is sulphur excreted in the urine?
- 6. What forms of acid substance are found in a contents removed from a normal stomach one hour after a test meal? Describe the method of determining the presence of combined acid in a contents when a free acid is present.
- 7. Mention all kidney diseases in which we may find fatty renal cells and fat globules, free and on casts, in the sediment.
- 8. What are the characteristic differences in the urine of a case of typhoid fever and of a case of meningitis?
- 9. What is the character of the urine and sediment in a case of catarrhal nephritis?
- 10. Discuss the following specimens of urine, giving reasons for the inferences which may be drawn from them: -

CASE A.

Normal color. Very acid. Sp. Gr. = 1021. Slight sediment.

 \dot{U} . = 1.9%. Cl. = 0.642%. E. P. = n. Uph. = n. \overline{U} . = 0.058%. Sf. = n. Albumin = slightest possible trace. No bile or sugar. Ind. = n. A. P. = sl. -.

Sediment = an occasional hyaline and finely-granular cast, mostly of small diameter, and rarely one with a blood globule and renal cell adherent. Very rarely a free blood globule and renal cell.

in 24 hours = 1700 cc. Amount of urine 66 66 6.6 6.6 " urea = 32.30 grms.66 66 " uric acid 6.6 = 1.15" chlorine 66 66 66 = 10.9166 " phosphoric acid " " = 2.29

11. CASE B.

High color. Very acid. Sp. Gr. = 1031. Considerable sediment.

U. = 2.74%. Cl. = 0.945%. E. P. = n. Uph. = n. $\bar{U} = 0.079\%$ Sf. = n.A. P. = n.

Albumin = slightest possible trace. No bile or sugar.

Sediment = numerous uric acid crystals. Hyaline and finely-granular casts, mostly of small diameter, and some with few blood globules and renal cells adherent. An occasional free blood globule and renal cell.

Amount of urine in 24 hours = 840 cc. " = 23.02 grms. " urea 6.6 66 66 " uric acid = 0.664" chlorine 66 66 66 6.6 = 7.95" phosphoric acid " " = 1.34

12. By what method is the existence of anaemia best determined? How can you determine the existence of leucocytosis in an examination of a stained specimen? How determine the type of leucocytosis?

Second Year Studies.

BACTERIOLOGY. - Professor Ernst.

- 1. Describe the morphological and biological characteristics of B. typhosus.
- 2. What are the methods of making the agglutination test in typhoid
- 3. Describe the morphology and methods of staining of M. gonorrhoeae.
- 4. How are antitoxines produced?

PATHOLOGY. - Professor Councilman.

- 1. Define gliosis. In what ways does early gliosis differ from gliosis of long standing?
- 2 and 3. Give differential diagnosis of the following forms of intestinal ulceration : -

 - (a) Typhoid.(b) Tuberculous.
 - (c) Peptic (where does it occur)?
 - (d) Carcinomatous (where most common)?
 - (e) Amoebic.
 - (f) Dysenteric, i. e. produced by bacillus dysenteriae.
- 4. In a case of myelogenous leucaemia describe the macroscopic and microscopic appearances of (a) the blood, (b) the liver, (c) the spleen.
- 5. Describe macroscopic and microscopic appearances of the kidney in acute interstitial non-suppurative nephritis. Under what conditions is it found?
 - 6. Describe the anatomy and bacteriology of acute broncho-pneumonia.
- 7. Give the pathological anatomy of emphysema of the lungs. What effects may it cause on the circulation and how?
- 8. What constitutes a tumor? How do you distinguish one tumor from another?
- 9. Discuss fully the various conditions of environment, natural and artificial, which may favor or restrict the transmission of animal parasites.
- 10. What kinds of injuries may result from the presence of intestinal parasites. Give illustrations.

HYGIENE. - Asst. Professor Harrington.

1. What is the actual daily proteid requirement of the system? What amount of proteid matter is contained in average beef, fish, milk, wheat, and peas?

2. What evidence can be cited that milk produced under the usual unsanitary conditions influences infantile death-rates?

What measures would you recommend to secure a wholesome milk

supply?

- 3. What is "sewer gas"? How does the air of a properly constructed sewer differ from that of confined inhabited spaces?
- 4. What influence has continued fog on the morbidity and mortality rates of a densely populated city? Why is the presence of a person afflicted with pulmonary tuberculosis a menace to the health of others in crowded workshops?
- 5. What influence is exerted by vegetation on soil moisture? on soil temperature?

What is the difference between a soil's capacity for water and its water-

retaining capacity?

- 6. What influences bring about the so-called purification of streams? In its passage through the upper layers of the soil, what changes occur in the character of a water rich in organic pollution?
- 7. Why is corrosive sublimate not a suitable agent for disinfecting human excreta?

What agents can properly be employed for that purpose?

8. In the event of a sudden extensive outbreak of typhoid fever in a city, what steps would you take to discover its cause?

What classes of occupations are recognized as most distinctly dangerous

to health?

Third Year Studies.

MATERIA MEDICA AND THERAPEUTICS.—Asst. Professor Pfaff.

[Conditioned men should answer all the questions.

Students taking the examination for the first time should answer as fully as possible question No. 6 and omit question No. 8.]

- 1. Pharmacological action of strychnine and its uses.
- 2. State the local and general action of arsenic.
- 3. Action of thyroid extract and its uses.
- 4. Action and uses of homatropine.
- 5. Write prescriptions for the following, avoiding abbreviations, and give directions in full to the patient: (a) dionin, (b) nitro-glycerine, (c) argurin, (d) atropine sulphate.
 - 6. General methods of treatment of stomach and intestinal diseases.
 - 7. Pharmacological action of alcohol.
 - 8. Uses of salol and stramonium.

THEORY AND PRACTICE. - Professor Fitz.

- 1. The relation between infection, intoxication, inflammation, and fever.
- 2. The conditions under which auto-intoxication is supposed to occur. Give examples.

- 3. Discriminate between a primary and a secondary anaemia.
- 4. Diagnosis and treatment of intestinal perforation in typhoid fever.
- 5. Diagnosis and treatment of pyopneumothorax.
- 6. Diagnosis and treatment of dilatation of the stomach.
- 7. Differential diagnosis of ascites and tubercular peritonitis.
- Differential diagnosis of prevesical phlegmon and haematoma of the rectus abdominis.
- 9. Treatment of uraemia.
- 10. Method of origin of renal dropsy and its treatment.

CLINICAL MEDICINE. — Professor SHATTUCK.

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive though correct diagnosis. Write out all prescriptions in full.]

Case 1.—A plumber of 40, married, is seen March 22. His family and previous history and habits are all good. He had clap many years

ago with good recovery.

One year ago he had an obstinate cough with expectoration (not examined) and a "patch" in his right lower front chest. He went to Florida and recovered entirely. About two months ago he noticed swelling of the face and neck, especially in the morning, and had to enlarge his collars. His friends said he was getting fat but his weight was somewhat less than in the summer. Stooping caused headache, a slight choking sensation, and swelling of the veins of his face and neck. After some weeks he had fever and malaise and sent for his physician who found swollen and very tender glands(?), especially on the left side of the neck. In the course of a week or so the tenderness and fever disappeared and the swelling diminished. He felt so well generally that he resumed work. Recently the swelling of the face and neck have returned and are more marked on rising. The left arm has also swollen without pain or tenderness. He has had several nose bleeds lately with relief to his head. Yesterday his temperature was 101.4°, and today 99.6°. Pulse 80, regular. The appetite, digestion, bowels, and sleep are normal. He breathes easily with the head low. The eyelids are said to have been puffy but are not so The face, neck, and upper part of the thorax are all somewhat The veins of the arms and their valves, swollen and hyperaemic. especially on the left side, are very distinct. The swollen veins are markedly dilated in the left lower axillary region and along the right diaphragmatic attachment. Visceral examination, the nervous system, and the urine are all negative, also the throat. The voice is clear. No glands in either axilla or groin. A blood examination shows nothing important.

Diagnosis? Prognosis? Treatment?

Case 2.—A steam fitter, 25 years old is seen March 25, 1905. The following facts were obtained from the physician in attendance. One brother died of phthisis, otherwise the family history is good. Venereal disease is denied. Though temperate before, he has used alcohol to excess during the past winter. Never robust, he was in his usual health up to March 1, when he began to complain of headache and sleeplessness. The former

became so severe that on March 12, he sought medical advice and two days later he was compelled to give up work. He became feverish, and the headache, which he located in the vertex, became intolerable. He has had nausea but no vomiting. For the past two days he has been delirious, and for the past twenty-four hours he has had incontinence of urine. When he first came under observation his temperature was normal, but for the past four or five days it has been elevated and irregular, but never over 102°. The pulse has varied from 54 to 70, is regular and of good quality. A count made March 21 showed 9000 leucocytes, to-day 2500. Widal, negative. Urine 1026, acid, no sugar, slightest possible trace of albumen; sediment contains an occasional hyaline cast, with renal cells adherent and numerous fresh blood corpuscles. Physical examination shows a thin man with rather deficient muscular development, apathetic, somewhat delirious. He replies to questions, but at random, and has little realization of his surroundings. Face flushed. Pupils equal, dilated, and react very sluggishly to light. Examination of fundus shows nothing important. No strabismus. The neck is somewhat rigid and the head is retracted, but not to a marked degree. Heart normal. Examination of the lungs is difficult owing to lack of assistance from the patient, but there is dulness at the right apex with prolonged, high pitched expiration and occasional fine, crackling rales on inspiration. The abdomen is retracted. The knee-jerks are normal, no Babinski, no paralysis made out.

Diagnosis? Prognosis? Treatment?

Case 3. — A manufacturer, 35 years old, is seen May 28. His father and sister died of phthisis, otherwise the family history is negative. While never strong he has been able to successfully attend to a large and exacting business. Three years ago he suffered from aestivo-autumnal malaria and was ill for several weeks. Since then he says that he has been treated several times for malaria. Last December he began to feel run down, but kept at work, with the exception of an occasional day, until the latter part of March when he went south to recuperate and remained there two weeks. His appetite and strength improved somewhat, but on his return, on the morning of April 8, after an elaborate dinner in New York, he complained of nausea and flatulency and felt feverish. He went to bed where he has since remained. The digestive disturbance has continued. He has vomited occasionally and has had a half dozen loose movements a day, nearly black in color, probably the result of bismuth which he has taken at frequent intervals. During the last few days he has noticed a slight cough without expectoration. The temperature chart shows a wave-like curve in which the morning record gives a normal temperature every nine or ten days, where it remains for from one to three or four days, after which it gradually rises for four or five days to 102° or 103°, and then as gradually falls. The evening record follows the morning curve quite closely, but has rarely gone below 100°. The temperature is always higher at night, and often during the periods of morning apyrexia rises as high as 103°. He has lost greatly in strength and flesh.

Physical examination shows a man much emaciated and weak, requiring help when he desires to move in bed. Sensorium free. Both cheeks are slightly flushed. There is dulness over the left front down to the third rib and in the left supra-spinous region, with broncho-vesicular respiration and increased voice sounds. There are numerous high-pitched, moist râles at the end of inspiration over the dull area. The heart sounds are normal. The hard smooth edge of the spleen is felt two inches below the

costal margin. Liver is normal. Abdomen is distended, tympanitic, somewhat tender everywhere, but especially in right iliac fossa. Pulse 112, weak and thready. Respiration 24. Leucocytes 12,000. Widal is positive in dilution $\frac{1}{60}$, but not higher. Blood culture shows no growth. Examination of the stools showed bacillus of tuberculosis, B. typhosus, B. colicommunis, streptococcus pyogenes, staphylococcus pyogenes albus. Urine 1018, acid, slight trace of albumen, a few hyaline and fine granular casts, amount 60 oz.

Diagnosis? Prognosis? Treatment?

PEDIATRICS. — Professor ROTCH.

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case and give the differential diagnosis, progr nosis and treatment: -

Clarence N., 7 months old, was admitted to the Infants' Hospital on

May 20th.

He was an only child of healthy parents. There was no tuberculosis in the family. He had always been fed on breast milk and had done very well.

The history was very unsatisfactory. He had apparently been taken rather suddenly sick on May 11th with fever and cough. The fever had continued. The cough had not been severe. The bowels were loose at first, but had not moved during the last five days. He had vomited constantly up to the last two days. The mother said that he had had "fainting fits" since the beginning, having had 11 in the last twenty-four hours. He had slept poorly, often groaning all night. He had kept his right leg par-

tially flexed during the last twenty-four hours.

Physical examination. He was fairly developed and nourished. color was fair. The level of the anterior fontanelle was slightly above that of the surrounding bones. It was 3.5 cm. in diameter. The posterior fontanelle was open. There was slight craniotabes. The parietal and frontal eminences were enlarged and the head was flattened on top. The membranae tympanorum showed nothing abnormal. There was internal strabismus on the left. The pupils were equal and reacted to light. He did not notice. There was no facial paralysis. There were no teeth. The throat was normal. The tongue was dry and somewhat coated. There was a slight rosary. The heart and lungs were normal. The level of the abdomen was a little below that of the thorax; the walls were somewhat rigid. The lower border of the liver was palpable 2 cm. below the costal border. The spleen was not palpable. There was no retraction of the head or rigidity of the neck. There was slight enlargement of the epiphyses at the wrists and ankles. There was no spasm or paralysis of the arms. There was no paralysis of the legs, but there was a tendency to hold the thighs flexed on the body and the legs on the thighs. The knee jerks were equal and very lively. There was no ankle clonus. Kernig's sign was absent. The genitals showed nothing abnormal. The cervical and inguinal lymph nodes were slightly enlarged. The temperature was 100.2° F., the pulse 110, the respiration 35. The white corpuscles numbered 23,200.

The urine was high colored and acid. It contained no albumen but a

large amount of urates.

- 2. Compare the prodromal symptoms of measles and scarlet fever.
- 3. The diagnostic points which would indicate a strong probability of acute lobar pneumonia in an infant or young child when signs of consolidation are not demonstrable?
- 4. A breast fed infant of four months is not gaining in weight. It is happy, sleeps well, has no colic and does not vomit. The bowels move but once in two days. The movements are small, hard, light-yellow, contain no abnormal constituents and have but little odor. Give diagnosis and treatment.
 - 5. Signs and symptoms of acute rheumatism in early life?
- 6. On what principles is the use of whey, in the preparation of an infant's food, based?

SURGERY. - Professor WARREN.

- 1. Give in full the diagnostic symptoms of caries of the spine.
- 2. Give the symptoms of hemorrhage and shock.
- 3. Give the symptoms, diagnosis, and treatment of anthrax.
- 4. Give the symptoms, prognosis, and treatment of burns.
- 5. Describe the mechanism of a Colles' fracture and give the treatment.
- 6. Give the symptoms and treatment of hemorrhoids.
- 7. Give the causes and treatment of acute obstruction of the intestine.
- 8. Give the symptoms and treatment of acute pancreatitis.
- 9. Name the benign and malignant tumors of the breast.
- 10. Give the symptoms of general peritonitis.

CLINICAL SURGERY .- Professor Burrell.

[Case 1 should be answered at considerable length. Cases 2, 3, and 4 should be answered briefly.]

Case 1.—A stockbroker, 26 years of age, single, had been feeling "seedy" for a few days. At 11 p.m. he began to vomit and had severe abdominal pain. Had been chilly during the previous day but had not had a rigor. Temperature was 101, pulse 110. Abdominal pain, tenderness and spasm referred to the right side of the abdomen. The patient, although athletic, had a muddy complexion and a slightly coated tongue. No tumor mass was felt. Resistance was principally over the right rectus muscle.

Discuss the case; give the differential diagnosis. What is the prognosis? What is the treatment?

Case 2.—A single woman, 58 years of age; painter. Six months ago had influenza, and following this a swelling appeared in the right side of neck just to the inner side of the carotid artery. This has not been uncomfortable until within a short time, when there has been a little discomfort. There is an ovoid shaped tumor $2\frac{1}{2}$ inches in length and $1\frac{1}{2}$ inches in thickness, which is deeply situated and is apparently beneath and around the right carotid artery. Just above this mass there is a smaller tumor the size of a hazel-nut. The mass is not tender. The patient is

very apprehensive. Seen again in a fortnight; tumor had increased at least one-fifth in size.

What is the diagnosis? What is the treatment?

Case 3.— An architect, 47 years of age, in walking across a plank in a building that was being creeted, slipped and fell, the board on which he was walking striking him between the thighs. Was faint for a time and vomited once. He walked to a trolley car and rode to his office. The pain which was referred to the thighs became severe and he was driven home in a carriage. There is an ecchymosis on the inner side of the right thigh extending on to the perincum. Any movement in bed is painful and guarded.

What is the diagnosis? What is the treatment?

Case 4.— A single woman, 40 years of age, tripped on a rug and fell, striking on the outer side of her left thigh. She was assisted to her feet, found that she could not walk, and was taken home in a carriage. Her left leg lay everted and slightly flexed.

What examination would you make? What is the diagnosis?

OBSTETRICS. - Professor W. L. RICHARDSON.

- 1. Treatment of miscarriage: threatened and inevitable.
- 2. Enumerate some of the danger signs which may appear during pregnancy, and state their significance.
- 3. What may be learned from the inspection, palpation and auscultation of the pregnant abdomen at full term?
- 4. What are the symptoms of threatened ante-partum eclampsia? Describe treatment, giving reasons for such procedure.
- 5. When the head, presenting O.D.P., has descended within the pelvis, what factors are essential to the anterior rotation of the occiput? In the absence of these factors, or of any one of them, what treatment should be employed?
- 6. A multipara, early in the first stage, is found by inspection and palpation to present the foctus Sc. L. A. The membranes are unruptured, and the os internum admits two fingers; no part of the foctus can be reached. What may result if the case is left to progress without interference? What treatment would promote the safety of mother and child?
 - 7. Diagnosis and treatment of hydatidiform mole.
- 8. Name the three most common causes of a rise in temperature during the puerperium and give the treatment.
 - 9. Etiology, prognosis and treatment of ophthalmia neonatorum.
- 10. A primipara has been twelve hours in labor. Pulse 80, foetal heart 130. Crests 27 cm., spines 24 cm., external conjugate 19 cm. The head is well engaged, the membranes are unruptured, and the anterior lip is all that is to be felt of the cervix. Treatment?

GYNAECOLOGY. - Asst. Professor DAVENPORT.

- What are the two principal forms of vaginal specula? Describe their respective advantages and disadvantages.
 - 2. Causes of prolapse of the uterus.
 - 3. Treatment of dysmenorrhoea due to anteflexion of the cervix.
 - 4. What is an erosion of the cervix, and how would you treat it?
 - 5. Describe briefly the operation of supra-vaginal hysterectomy.

DERMATOLOGY .- Asst. Professor Bowen.

- 1. Describe the clinical appearances of a typical case of scabies and give full directions for treatment.
- 2. Enumerate, and describe briefly, the four important forms of cutaneous tuberculosis.
- 3. With what other affection or affections may an erysipelas of the face be confounded, and what are the points of differential diagnosis.
- 4. A girl of 7. Psoriasis of several months' duration. Numerous isolated, nummular and annular lesions, scattered over the trunk and extremities. The scalp is moderately affected. Treatment?
 - 5. Describe a case of alopecia areata.

SYPHILIS. - Dr. Post.

- 1. A man with multiple sores upon the genitals, supposed to be of venereal origin, applies to you for diagnosis. What signs and symptoms would lead you to think the case one of primary syphilis?
 - 2. Describe the common lesions of the scalp.
 - 3. Describe the papular eruptions of mucous membranes.
- 4. What risk does an apparently healthy woman run in nursing her own syphilitic child?
- 5. What symptoms would enable you to make a diagnosis of inherited syphilis in a baby of three months which showed no lesions of the skin?

NEUROLOGY. - Professor PUTNAM.

- 1. Give the causes of hemiplegia.
- 2. Give the different clinical bearings of paraesthesia of the hands.
- 3. Discuss the following case:—

The patient is a married man, of 61, who had been a good worker and had been obliged to endure financial losses, in spite of which he had enjoyed good health, except for occasional attacks of "muscular rheumatism," and of occasional feelings of distress across the chest, associated with numbers of the right arm. This latter symptom had usually followed slight excess in exercise.

On November 7, while sitting quietly at home, he was seized with a sharp pain across the chest, spreading toward the right side. This passed away and he awoke next morning free from discomfort. While taking his

bath, however, he was again seized with the pain in his chest, which this time was rather toward the left side, and quite severe. After resting for a moment, he got up and tried to walk, but found his left arm and leg helpless, and fell to the floor. After half an hour, the pain in the chest returned in a more severe form than before and lasted three hours. The paralysis of the left arm and leg passed away after a few hours, but he then found that the sensibility of the skin over the whole left half of the body was greatly impaired, so that he did not feel the prick of a pin. The face was less affected than the limbs, but the mouth was drawn slightly to one side and the speech was not clear. He lay in bed three weeks, suffering a good deal from indigestion, constipation, and poor sleep. He can now move the left hand and fingers freely and rapidly, but unless he looks at the hand, he cannot easily button his clothes with it, and is liable to drop objects which he has picked up. He also makes mis-steps in going down stairs, from lack of a sufficient sense of the relationship between his foot and the step, and when the eyes are closed the movements of the left arm and leg are somewhat ataxic. Nevertheless, on casual inspection these movements seem practically normal.

On February 2, that is, three months after the onset of the paralysis, and in the early morning after a day of mental fatigue, he suddenly felt his left hand "get away from him" and begin to execute violent movements which he was wholly unable to control. After this attack had lasted nalf an hour, he lost consciousness completely for a time, and three days passed before he was able to use his hand as well as before. About a month later he had another similar attack. This time the convulsion lasted an hour and a half before consciousness was lost, but on recovery

he felt better than at any previous time since he was taken sick.

At present, he feels well enough, except for an unnatural itching sensation which is referred to the entire left side of the body. There is also a sense of fulness at the back of the head, and indeed this has been present

ever since the first attack.

A physical examination gives the following results: Inspection of the pupils, eye movements, face, and tongue reveals nothing abnormal. The examination of the heart shows a sharp accentuation of the second aortic sound, but no material increase in the area of dulness. The radial arteries are tense. The knee- and ankle-jerks are moderately increased. An examination of the sensory function shows that, besides the impairment of the sense of position above noted, the patient has a marked astereognosis of the left hand, associated with a striking impairment of the sense of contact. At the same time, changes of temperature, in the direction of either heat or cold, are recognized quite as readily with the left hand as with the right. Similar, but less marked disorders of sensibility are present for the left foot.

The urine analysis shows essentially normal conditions.

PSYCHIATRY. — Dr. Cowles.

1. In cases of "imperative ideas" describe briefly the reaction between the attention — object, the emotions, and the will.

2. What are the symptoms of nervous exhaustion, mental and physical?

3. What are the differential characteristics of depressive-maniacal insanity and dementia praecox?

4. Case. - A man; age 27 when admitted to hospital in 1897; heredity good; graduated from college in 1890 with former good health impaired by tuberculosis but improved in Colorado; in business two or three years and then began study in a lawyer's office. Ambitious but became unsociable and increasingly discouraged. In 1895 suddenly accused the lawyer of insulting him by asking for a postage stamp. His strange conduct afterwards caused his arrest and commitment to an asylum. When seen by relatives soon after, he was slow in speech and at times appeared unable to answer questions; once asked "What is the matter with my head?" Became better in the summer, was gloomy again in the fall, and believed that his "case" against his former employer had "never been tried," and went to a distant city to see him but was arrested there a Taken home and improved; in spring of 1896 appeared second time. very well, but in July was worse again; drove to Brookline at midnight to see his uncle for no good reason, but not getting into the house went to the Masonic Temple: said later that he had written to the Masons to help him. Among similar delusions he believed that a mind-reader talked to him, though he did not hear the words, and made him think and do and say things contrary to his wishes. He was sent to a private hospital

Committed to McLean Hospital in April, 1897; the symptoms continued; he preferred to stay in his room because, as he said, others "are prejudiced against me and see something in me different from others." Repeated his delusions of the mind-reader's power to influence him; thought the mindreader was connected in some way with the former troubles in the lawyer's office, and that the Freemasons knew about it; wanted to go to see them. In his daily walk he followed every time exactly the same course; at the entrance to the hospital grounds he always turned about and returned to his room in the same way he came, and could not be induced to vary his course. In June, became silent and refused food; he suddenly attacked the nurse, and thereafter frequently did impulsive acts; while generally quiet he sometimes would suddenly jump up and break something. These impulsive outbreaks ceased but continued reticent, and was tube-fed; he thought trivial remarks and occurrences were intended as insults to him. At this time he usually stood or sat in a fixed position, with intense muscular resistance to attempts to move him, and answering no questions. In November and December spoke more freely, - of being poisoned, - and of the mind-reader who made him say vulgar things, swear, etc., which he did not wish to do. His condition did not change materially and he was taken away from the hospital in 1898.

Give diagnosis and prognosis, pointing out the characteristic symptoms.

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. Acute glaucoma. (a) Prodromic symptoms. (b) Clinical history. (c) Treatment.
- 2. Convergent strabismus. History. Treatment.
- 3. What ocular symptoms may occur in a case of locomotor ataxia?
- 4. The etiology of interstitial keratitis.
- 5. What are the characteristics of the field of vision in hysterics?

OTOLOGY. - Professor BLAKE.

- 1. Describe the auricle and its attachments.
- 2. Describe the three intratympanic ossicles.
- 3. State the effect of normal, and of excessive, contraction of the tensor tympani muscle.
- 4. Give the pathology of simple, acute, suppurative inflammation of the middle ear.
- $5.\ \,$ Describe the appearance on inspection of the normal drum-head, in an adult.
- 6. Describe the change in appearance incident to thickening and retraction of the drum-head.

LARYNGOLOGY. -- Dr. COOLIDGE.

- 1. The etiology, diagnosis and treatment of nasal mucous polypus.
- 2. Describe the openings of the accessory sinuses into the nasal cavity.
- 3. The anatomy of the tonsillar ring of Waldever.
- 4. The appearances and diagnosis of late syphilis of the pharvnx.
- 5. Draw and describe the normal larynx as seen in the laryngoscopic mirror.
 - 6. The causes and significance of interarytenoid thickening.

Fourth Year Studies.

CLINICAL MEDICINE. - Professor Shattuck.

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive though correct diagnosis. Write out all prescriptions in full.]

Case 1.—A manufacturer of large business, 62, a widower of good habits and family history. Was never sick until as below stated. Has been especially confined in the past year and has gained from 164 to 174 pounds in weight. He was seen February 15.

Shortly before Christmas he got somewhat chilled and soon afterward noticed shortness of breath on walking. He took competent medical advice and his doctor states that at that time his urine was negative. The dyspnoea on exertion got no better and substernal pain extending over the arms was soon superadded. This pain was not very severe, came on only during exertion and soon passed away on stopping. About two weeks ago, after a hearty, rapid, and rather indigestible mid-day dinner he was taken at his mill, without antecedent exertion, with a very severe attack of pain as above described. A local doctor was called and his regular attendant sent for. When the latter reached him he was in a cold sweat and seemed alarmingly ill. Pulse 80, regular. After two hours he was driven home 4 miles, arriving with pulse at 80 and temperature at 97.5°. The next day the pulse was 100, temperature 100°, rising to 120 and 102° the next day

or two. There was some bloody expectoration at this time with slight signs of consolidation at the right posterior base. For the past week the pulse and temperature have been normal. When seen February 15 he stated that he felt perfectly well. He looked rather pale, lay in bed with his head low, breathing easily, not cyanotic. The pulse, 80, intermitted occasionally. The artery was soft, tension not high. No oedema of face or legs. The heart was not enlarged to percussion, sounds clear. A few rales without dulness over the left posterior base. Percussion was dull with resistance an inch below the right costal border, but the liver edge could not be felt. The urine, 52 to 54 oz. per diem, contained a decided trace of albumin and a few hyaline easts, sp. gr. 1020, urea 2%.

Diagnosis? Prognosis? Treatment?

Case 2. — A business man of 58, of good family and previous history, is

seen in February. He denies venereal disease.

About a year ago he first noticed that his legs felt cold and that he got more easily tired in the legs than formerly. He passed the summer at the seashore, going daily to town for business. In the fall his legs also felt numb and were weaker still. About December 1 he ceased going to business although he drove out daily. There has been no fever or loss of weight. Except for his weak legs he feels perfectly well. He walks with great difficulty in the room, gait rather spastic. During the past three weeks it has been at times rather hard to start urination, especially when cold. Pulse and temperature normal. Bowels regular. Visceral examination negative. The intellect is clear. The pupils are equal and react to light. Grasp of hands good, no ataxia in hands. Tactile sensation is everywhere normal except at the tips of the big toes, where it seems somewhat blunted. There is little muscular wasting in the legs. There is no tenderness either of the nerve trunks or of the muscles. No fibrillary twitching, though the muscular irritability is increased on snapping with the nail. All movements of the legs and feet can be performed, though feebly. Weakness seems more marked in the extensors than in the flexors. Superficial reflexes are absent, save a slight plantar. The knee jerks are somewhat increased and a slight ankle clonus is present. The urine contains a decided trace of lead, otherwise it and also the blood are normal. Potassic iodide has been of no marked service.

Diagnosis? Prognosis? Treatment?

Case 3.—A liquor dealer, 47 years old, is seen December 15, 1904. His father died at 67 of "obstruction of the bowels," his mother at 63 of pneumonia. He regularly used whiskey and beer to excess up to 1891 when he had an attack of bloody vomiting after a debauch. He had a similar attack in 1895 and again in 1902. He never was kept in bed more than a few days, and always returned to business within a week. After each attack he gave up all alcohol for periods varying from six months to two years and then relapsed into his former habits. He has suffered for years from digestive disturbances, "sour stomach," which have been much worse during his periods of alcoholism After twenty months of abstinence he began to drink about three months ago and since then has complained of anorexia, pain, eructation of gas, nausea and vomiting. The pain is located in the epigastrium, comes on ten to fifteen minutes after eating and is relieved by vomiting. On the afternoon of Decemor 11 he vomited a small quantity of bright red blood, and since then he has vomited after nearly every meal, but he has noticed blood only on one other occasion, two days ago, when he threw up nearly a pint. He has

noticed tarry stools for several days. He has recently lost about 15 lbs., present weight 185. Mucous membranes pale. Heart normal in size, action regular, soft systolic murmur at apex, not transmitted. Pulmonic second sound not accentuated. Abdomen tympanitic throughout, slight tenderness on pressure over epigastrium. Liver dulness extends from fifth interspace to two fingers' breadth below costal margin where its smooth edge can be felt. Lower edge of spleen felt on full inspiration. Physical examination otherwise negative. Pulse 100, regular, of good quality. Temperature 98.4°. Urine, sp. gr. 1020, acid, no sugar, no albumen, Hg. 50%, red cells 3,172,000, no nucleated cells. Leucocytes 9200.

Diagnosis? Prognosis? Treatment?

CLINICAL SURGERY. - Professor M. H. RICHARDSON.

[Cases for thorough discussion.]

Case 1. — Woman of 45, married; three children (youngest seven); had always been in good health. Father died at 76 of apoplexy; mother died of cancer of the uterus. No consumption, cancer, or other hereditary disease, in brothers, sisters, uncles, or aunts. Uterine functions Patient seen in consultation on Tuesday, October 18, 1904. No trouble up to the preceding Friday. On that day for dinner she ate ovsters, which once before had disagreed with her. Sonn after dinner, while at the theatre, she was seized with frightful pain near the epigastrium. She stayed in the theatre until the play was finished. A physician was called who, at eleven-thirty, found her kneeling on the floor in terrible pain. He gave an emetic of hot water with fifteen grains of sulphate This produced a little brownish vomitus - perhaps two or three ounces. Then he gave a subcutaneous injection of a grain morphia that relieved her considerably. This was followed by \(\frac{1}{8} \) grain subsequently. He gave her also a laxative of podophyllin and calomel. She had a fairly comfortable night.

From that time until Tuesday she had no evacuation of the bowels. Very little gas was passed up to the afternoon of Saturday, and after this time no gas whatever. The pain after the first was not sharp, it was simply an uneasy feeling. There was distress in the epigastrium, but the

pain was not localized.

On Saturday the abdomen was soft; on Sunday it was less so; on Monday it was tender. There was no increase of leucocytosis. Pulse 68-84. Highest temperature was 99°. Vomiting became easy regurgitation. There was no odor to the vomitus; it was dark and slimy. About one or two ounces at a time were regurgitated. On Monday the stomach was washed out. No tumor or anything else abnormal could be felt in the abdomen. The urine was negative.

The surgeon found the abdomen distended, but not rigid. It was everywhere tympanitic. The general condition was fair, neither very good nor very bad. As the result of his examination a definite cause of symptoms

was found.

Operation was performed immediately, and the cause of the symptoms quickly and completely relieved. The patient, however, died the next day. The cause of death was shock and exhaustion.

Discuss this case.

What did the surgeon find? On what grounds probably did he operate?

Case 2. — On Saturday, September 8th, a gentleman of 55 was thrown from his carriage and received a compound comminuted fracture of the left ankle. Two inches of the tibia protruded. The fibula was comminuted. The patient was etherized and the fragments of the fibula were removed. The wound was thoroughly cleansed, drained by means of two small wicks of gauze, and dressed with sterile gauze. The leg was then fixed immovably upon a posterior wire splint. On the following day, Sunday, the temperature rose. On Monday the dressings were changed. There was nothing but an exudation of serum: there was no pus. The temperature came down to 99°; the pulse ranged about 75. The patient remained perfectly comfortable from Monday, the 10th, to Saturday the 15th, when he began to complain of twitching and kicking of the leg. The dressing was then renewed and everything looked well. The swelling about the wound had entirely disappeared. On Monday, the 17th, everything was in good position; but the patient still complained of muscular twitchings, which by that time had involved the arm. They were described as slight muscular spasms. The patient said that he had bitten his tongue. On Tuesday, the 18th, the abdomen was somewhat distended, and the patient vomited. The muscular twitching had extended to the jaws. On the evening of the 18th there was a good deal of rigidity in the muscles of the jaws, and it was difficult for him to talk. He vomited black material. The pulse was throbbing; the temperature subnormal. On the morning of the 19th (Wednesday) when he was seen in consultation, the wound presented an unhealthy appearance. The twitching of the muscles of the leg had thrown the tibia out of position, but the twitching was somewhat less severe than it had been. The temperature was subnormal; pulse 120. There was incessant twitching of the muscles, so that the tibia had protruded through the wound. The patient was vomiting constantly. Every time there was twitching of the limb he had an attack of nausea, with regurgitation of black fluid from the stomach-fluid like coffee grounds. Physical examination showed the jaws fixed; the sterno-mastoids tense. Pulse 120; temperature 96. The leg looked bluish and lifeless — "indolent." The abdomen was distended. The patient regurgitated constantly a black vomitus.

What is the diagnosis? What the prognosis? What the treatment?

[Cases for Diagnosis. - Please answer in a word or two or in a brief sentence.]

Case 3. — Man of 57, dentist, gives the following history: —

When he was fourteen years old a boy threw a knife at him. The point struck him in the popliteal space of the left leg. The injury was not a serious one, and the cut immediately healed. He had no trouble whatever at that place for more than 30 years. He said that about seven years before the present visit he got a clot of blood in the popliteal space by sitting with his legs crossed, but for three years he had no trouble with it. Then he was attacked by very severe pain in the popliteal space. For this pain he took morphia frequently subcutaneously, until he got into the habit of taking it. He was a very nervous man, and he took some kind of hypnotic every day. At times he has severe pain in the knee; at other times there is little or no pain; but, as he is in fear of pain all the time, he takes frequently hypodermic injections of morphia. When the pain comes he describes it as "something terrible."

In the popliteal space is a tumor about the size of a lemon. This tumor pulsates strongly, by stethoscopic examination, and a strong murmur can

be heard. To the fingers there is a thrill. The thighs and forearms are thickly dotted with minute needle-pricks from subcutaneous injections of morphia.

Case 4.—Spinster of 27, teacher, who had always been well and with a good family history, consulted her physician because her abdomen was getting so large that she felt ashamed to be seen on the street, fearing people would think that she was pregnant. There were no symptoms or signs whatever except the enlargement of the abdomen. For this the physician could find no cause. It seemed to him a simple gaseous distention, for which he prescribed. There was no pain; there was no neoplasm; there was no pyrexia; there were no constitutional symptoms, and no local signs besides the enlargement. The menstrual function was normal; the appetite was good; the bowels were regular.

Four weeks after this patient first consulted her physician she was seized with sudden pain in the abdomen, which became larger than ever. She was somewhat constipated; but the bowels responded to cathartics. The temperature rose to 104°; pulse to 120. The abdomen became enormously distended—so much so that respiration was seriously interfered with. A local surgeon was called in consultation, but no reasonable explanation for the symptoms could be found. Operation was considered; but as the surgeon had no definite idea of what an operation could accom-

plish, he advised further study of the case.

The woman had continued her duties as school teacher up to the time when she had the sudden pain and the rise of temperature. Three days

later she was seen in consultation by a metropolitan surgeon.

The patient was lying in bed, and her face was the picture of health—clear complexion, bright eyes, and red cheeks. She was evidently suffering considerably, however, from dyspnoea. The abdomen was very much distended. The diaphragm, with the liver, was pushed up so high that the pleural cavity, especially on the right side, was seriously encroached upon. The abdomen was very tympanitic about the umbilicus; the flanks were flat. A wave could be transmitted through the abdomen. Vaginal examination was negative. When the patient was creet a wave was unmistakable.

Three days later, when the patient was fully etherized, the surgeon could find, on the most thorough bimanual examination, nothing by vagina except a doubtful resistance in the posterior cul-de-sac. No tumor what-

ever could be felt by palpating the patient.

The surgeon made the diagnosis knife in hand. What did he find?

Mention as many possibilities as you please in the order of your estimate of the protatelities.

Case 5.—A man of 45, the president of a college, had been for years subject to attacks of acute indigestion. He had never been jaundiced. The pain was described as very severe; it was situated in the right hypochondrium, extending in various directions but chiefly through to the back. He was seen November 10, 1904. During one recent attack of pain there had been tenderness in the region of the gall-bladder, with fever. Urine 1028; no albumen; no sugar. He was a large, powerful man, with tenderness in the region of the gall-bladder.

Name the lesion.

Case 6. — Man of 48, skilled laborer, married. Trouble began in January, 1905, with soreness of the left breast in which he could feel a lump. His attention was called especially to the lump because he felt it

when trying to sleep on the left side. The patient was a very powerful man. He came of a strong family in which there was neither consumption nor malignant disease. The lump in the breast was removed by a local physician on February 22, 1905. After the operation the scar remained tender and painful. In the axilla also there was soreness and pain.

Physical Examination. — About the sear the skin was thickened and reddened, and here and there were small, hard masses — spots of marked induration. One area about the size of a twenty-five cent piece, situated over the sternum, was somewhat adherent to the bone. Enlarged glands could be felt in the axilla. The man weighed two hundred and fifty pounds. Heart, lungs, and kidneys were normal.

Name the disease and indicate the treatment.

Case 7. — A woman of 57, seen November 14, 1904, presented, through

her physician, the following history: -

She had always been a victum to piles, and, in a general way, had what she described as "weakness of the bowels." There never were any abnormal physical signs in the abdomen until this summer, when, after extensive travel in Europe, she began to have in the abdomen discomfort described as "soreness and flatulence." Defaecation was difficult, and the stools were ribbon-like. No physician was consulted. The discomfort disappeared, and the patient returned to America. After her return the feeling of weight and pressure in the abdomen reappeared, and her physician in Boston found a mass in the left iliac fossa. This mass was movable. and did not seem connected in any way with the rectum or vagina. The patient was lame and sore in the left side. There were flatulence, tenesmus, and straining. There had been some blood in the stools, but there was no loss of weight. The woman was of slender build, and her color was said to be as bad. The patient herself described her trouble as "a discomfort in the region of the rectum." She said it seemed as if on straining the bowels were coming out. To produce movements, she had to take laxatives in the form of pills. The movements were very small, about the size of the finger. There was no spasm of the intestine, and there were no unusual intestinal sounds.

Physical examination showed some fluid in the abdomen, and in this fluid could be felt movable tumors. Vaginal examination was very difficult, but nothing abnormal could be detected. Rectal examination was

negative.

The diagnosis was malignant ovarian tumor, with ascites and intestinal obstruction. An operation was advised, and a very grave prognosis was given; but the surgeon expressed a strong hope that his diagnosis might be wrong.

The abdomen was opened November 23, 1904. The lesion was easily remedied, and the patient was permanently cured. What was the lesion?

Mention several possibilities in the order of probability.

Case 8.—A woman 55 years of age was examined on April 26, 1905, for a persistent haemorrhage from the uterus, with a vaginal discharge. These symptoms had been of two years' standing. There had been moderate pain for two months, during which time there had been loss of weight and strength, and gradually increasing pallor. Complicating the uterine symptoms there had been gradually increasing difficulty in movements of the bowels.

On physical examination no tumor whatever could be felt in the abdomen. Bimanual examination showed a somewhat enlarged uterus with

a mass apparently in the right horn. Posteriorly, on the left, a distinct mass about the size of a lemon could be felt.

Examination under ether was advised, and an exploration was made on May 3d. Under ether the condition in the pelvis just described was verified; but it was impossible to be sure of the nature of the tumor in the uterus or of the nature of the mass in the left side of the pelvis. On opening the abdomen the tumor was found freely movable, non-adherent, with bulging in the right horn. The mass in the posterior cul-de-sac was the sigmoid flexure with a thickening of the meso-colon, and a mass encroaching upon the lumen of the bowel. There was evidence of some connection between the mass in the uterus and the mass in the intestine. Dilatation of the cervix and curetting of the uterus showed that the uterine cavity was filled with soft, friable, pearly masses, which bled freely. The uterine condition was evidently malignant, and was probably the growth known as malignant adenoma. With these facts in mind, and with the abdomen opened, what would you have done?

ORTHOPEDIC SURGERY. - Professor Bradford.

- 1. What are the pathological changes in tubercular disease of the hip joint?
- 2. Give the principles of treatment of tubercular disease of the hip joint.
- 3. Describe the chronic non-tuberculous affections of the knee.
- 4. What is Pott's disease?
- 5. How is Pott's disease to be treated?
- 6. Describe the deformity called club foot.
- 7. Give the difference between infantile and cerebral paralyses.
- 8. Give the treatment of each.
- 9. Describe scoliosis.
- 10. How is torticollis treated?

SYPHILIS. - Dr. Post.

- 1. What would lead you to think a sore upon the tongue to be a primary lesion of syphilis? For what might it be mistaken? How differentiate?
- 2. What is the condition of the lymphatic glands during the stage of primary syphilis and what is their value in diagnosis?
- 3. What are the general distinctions between early and late skin lesions in syphilis?
- 4. What peculiarities would lead you to suspect congenital syphilis in a young person between ten and twenty years of age?

OTOLOGY. -- Professor Blake.

- 1. Describe the auricle and external auditory canal.
- 2. Describe the bony labyrinth and give its position in the temporal bone.
- 3. What are the effects produced by contraction of the stapedius muscle?

- 4. What changes result from prolonged closure of the tympanopharyngeal tube?
- Give the subjective and objective symptoms in a case of acute congestion in the middle ear in a child.
- 6. Give the pathology of suppurative disease of the middle ear.

LARYGOLOGY. - Dr. DEBLOIS.

- 1. "Nasal diphtheria" and "foreign body in the nose." How do they differ in appearance? How would you treat both cases? Prognosis.
- 2. In acute sinusitis, what is counterindicated? When should you open into the sinus? Treatment.
- 3. In paralysis, after diphtheria, how is the voice affected, and what is the prognosis and treatment? Describe condition of pharynx and velum.
- 4. What is retro-pharyngeal abscess? How does the uvula look? What are the dangers of delayed incision?
- 5. Differentiate between tuberculosis, syphilis, and carcinoma of the larvnx.
 - 6. Draw pictures showing the three forms of oedema of the larynx.

Electives.

ANATOMY. - Dr. WARREN.

Give a description of the structures, including relations, found in a dissection of:—

- 1. The superior carotid triangle.
- 2. The front of the forearm.
- 3. The male perineum.

HISTOLOGY OF THE NERVOUS SYSTEM. - Professor MINOT.

The problem is set of demonstrating the anatomy, histology, and development of all the more important structures, shown in a transverse section of the medulla oblongata in the region of the main olive.

State the methods to be employed to render this demonstration thorough and comprehensive, and indicate briefly the facts of structure to be brought out by each method.

CLINICAL CHEMISTRY. - Professor Wood.

Toxicology.

Describe in detail the method for the isolation of strychnine from organic mixtures and the various confirmatory tests after isolation.

COMPARATIVE ETIOLOGY OF INFECTIOUS DISEASES. Professor T. Smith.

(Answer three questions only.)

- Briefly outline the great groups of micro-organisms which act as parasites and give a few salient characters of each.
- 2. Describe the paths by which the micro-organisms of the following diseases may enter and leave the body: Anthrax, tuberculosis, and rabies. What are the chief vehicles of infection?
- 3. How is diphtheria toxin made harmless and how are the bacteria of typhoid and Asiatic cholera destroyed in the body? Describe the mechanism in each case.
- 4. What bodies may appear in the blood serum of an animal after the repeated injection of blood from another species? How would you demonstrate their presence?
- 5. What different methods have been devised to produce active immunity towards infectious agents in man and higher animals? Describe and give illustrations.

CLINICAL · MICROSCOPY. - Dr. WHITNEY.

- 1. What are the different forms of endometritis and their microscopic characteristics?
- 2. What are the differences between a cancer and sarcoma to the eye and microscopically?
 - 3. What are the different types of cancer of the breast?
 - 4. Diagnosis of specimens.

OPERATIVE SURGERY. - Professor M. H. RICHARDSON.

- 1. How would you remove a stone from the common duct?
- 2. Describe the operation for empyema.
- How would you operate for the haemorrhage of extra-uterine pregnancy?
- 4. Trephining for middle meningeal haemorrhage.
- 5. Amputation of upper arm.
- 6. Ligature of subclavian artery.

ORTHOPEDIC SURGERY. — Professor Bradford.

- ${\bf 1.}\,$ Describe the simplest form of apparatus used in infantile paralysis of the lower extremity.
 - 2. What is it expected to accomplish?
- 3. Describe the pathological course of an untreated case of a tuberculous affection of the hip joint.

- 4. What are the most important chronic diseases which attack the joints?
 - 5. Give briefly the pathological changes to be found in each.
- 6. In what way can apparatus aid in the cure of tuberculous disease of the hip joint?
 - 7. Describe in detail such forms of apparatus.
- 8. In what way can mechanical aid be of assistance in the treatment of caries of the spine?
- 9. Describe the operative treatment of rachitic curves of the lower extremities.
- 10. Describe the operative treatment of chronic tuberculous disease of the ankle.

OPERATIVE OBSTETRICS. - Associate Professor C. M. Green.

- 1. A multipara, first seen after six hours of labor, is found to present the head, O.D.P. The membranes are unruptured, the os uteri fully dilatable; the head is lightly engaged by the occipito-frontal diameter, so that the brow dips into the left anterior pelvic quadrant. The pelvic measurements are normal; the child is estimated to weigh nine pounds. Mother and child are in excellent condition. Discuss your subsequent treatment of the case, and outline any operation you may perform.
- 2. A multigravida, living seven miles from her physician, is seen in consultation, late in her eighth calendar month, on account of two rather severe attacks of uterine haemorrhage. The patient is found to be in fair condition, although showing the effects of her last haemorrhage; the foetus is alive, and is in left anterior position. Through the slightly patulous and softened cervix the placenta is found to partially cover the os. The presenting part is not reached, for fear of rupturing the membranes; but by external palpation the head is felt in the lower uterine segment. Outline the treatment you would advise in this case; and, if this treatment involves any operation, describe it.
- 3. Enumerate the sources of post-partum bleeding, and state concisely the treatment you would employ in dealing with haemorrhage from each source mentioned.
- 4. A quadripara, seen in consultation after labor has lasted twenty-four hours, is found with a temperature of 102° F., and with a pulse of 132 of poor quality. The pains are short and irregular; the uterus is in a state of tonic spasm. The foetus is firmly engaged in the brim by the occipito-frontal diameter; the supra-orbital ridges can just be reached high in the right posterior pelvic quadrant. The foetal heart sounds are faintly audible, rapid and intermittent. State concisely your treatment of the case from this time, and give the important steps of any operation you may perform.

GYNAECOLOGY. - Associate Professor C. M. GREEN.

(As far as possible, illustrate your work with diagrams.)

- 1. Acute torsion of the pedicle of an ovarian cyst: aetiology, pathological results, diagnosis, prognosis, treatment?
- 2. Tubal pregnancy: outline the development and course of gestation, with concomitant symptoms, and indicate the treatment according to conditions.
- 3. Define myomectomy and hysterectomy. In a case of multiple fibroids what conditions would influence your choice of operation? Describe concisely the technique of myomectomy in a subserous growth.
- 4. Chronic retroflexion of the uterus, without adhesions, in a multipara of 32 in whom pessary treatment has failed; give the technique of the operation of your choice for the relief of this condition.
- 5. Laceration of the cervix uteri, with hyperplasia, eversion, and endometritis: define your choice of operation as between amputation and trachelorrhaphy. Describe concisely the technique of the operation of your election.

DERMATOLOGY. - Dr. WHITE.

[Write all prescriptions in full.]

- 1. Write a good description of dermatitis herpetiformis and discuss the various methods of its treatment.
- 2. A man who lives on a farm and spends much of his time in driving, states that ten weeks ago he noticed a superficial pustule on the front of his neck where his collar button rubs. This lesion was followed by other similar pustules at several points in his beard and on his wrist. From these primary seats the disease spread until, at entrance to the hospital, the patient's beard from one angle of the jaw to the other and from the jaw bone above to the lower edge of the beard below was a mass of deeply infiltrated tissue covered with soft, red, fluctuating, closely aggregated abscesses. On traction the hairs came away easily and, on inspection, every hair seemed surrounded by a mantle of pus. The wrist lesion appeared as a circular, raised, boggy plaque, more than an inch in diameter and covered with a mass of pustules.

What disease is present? Give a full differential diagnosis and prescribe a suitable method of treatment.

- 3. State fully the general and the local treatment of alopecia furfuracea.
- 4. A young woman has on the back of her left leg, two inches below the calf, a small, nearly circular ulcer which is rather indolent looking, with a sloping margin and a reddish, sluggish floor. All around this ulcer is a deeply infiltrated, rather firm, sharply bounded mass not particularly sensitive to pressure and covered with a dull red skin. The history given is that a deep nodule appeared about one year previously and had gradually increased in size without any great inconvenience to the patient. One month before her visit to the hospital the mass had ulcerated on top and the whole area had become somewhat painful. The patient was not strong

and belonged to a family where tuberculosis in one form or another had been observed in several instances.

What disease is present?

5. Describe some of the methods in vogue for the removal of warts.

NEUROLOGY. - Dr. WALTON.

- 1. How determine the seat of the lesion causing facial paralysis?
- 2. Friedreich's ataxia, symptomatology and pathology.
- 3. Differential diagnosis of convulsions.
- 4. Operability of brain tumors.

Case. — A man of 31, with a good family and previous history, had used tobacco freely and alcohol moderately, and had several months before indulged once in illicit intercourse, but had noticed no signs of venereal disease following. The last of December he was suddenly attacked with severe headache and vertigo, so that he could not walk. The headache was worse at night and was attended with some vomiting. This was followed by double vision, a numb sensation on the left side which varied in extent and severity and at times led him to drop objects held in the left hand, and by a tendency to go to the left when he walked. On examination it was found that the pupils were normal. He could not turn the right eye outward beyond the median line. The field of vision and the fundus of the eye were normal. There was a slight diminution of nerve perception in both ears and a slightly lessened perception of low tones in the right ear as compared with the left. There was inability to move the right side of the face as well as the left. The grasp of the left hand was 45 kilograms, that of the right 60. There was a little uncertainty in touching the nose with the left forefinger with the eyes shut. Sensation to touch was a trifle less in the left hand, and he did not recognize familiar objects as promptly when placed in that hand. Other forms of sensibility were normal and the area of diminished tactile sensibility was not well defined. The knee-jerk was livelier on the left side and a front tap contraction could be obtained only on the left side. The abdominal and epigastric reflexes were livelier on the right side; the plantar reflexes were equal and normal. The headache and vertigo recurred occasionally, but were not as severe as at the onset.

Diagnosis? Prognosis? Treatment?

An intelligent discussion of the case is of the greatest importance. It may be assumed that other symptoms are absent, but you may mention any additional symptoms which would seem to you essential for an intelligent consideration of the case.

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. The Helmholtz theory of accommodation.
- ${\bf 2.} \ \ {\bf Trachoma: description, clinical history, differential diagnosis between trachoma and follicular conjunctivitis.}$
 - 3. Sympathetic inflammation: description, history, treatment.
 - 4. Acute and simple glaucoma: clinical history, treatment of each.
- $5.\ \mathrm{Myopia}:$ life history of a simple case, what complications may arise in a progressive case.

OTOLOGY. - Professor BLAKE.

- 1. Enumerate the normal openings in the walls of the tympanum and give their relative positions.
 - 2. Describe the bony labyrinth.
- 3. What are the functions of the tympano-pharyngeal tube, how does it act?
- 4. Give the pathology of an acute congestion of the tympanum, with serous exudation, resolving without suppuration.
- 5. Give the treatment in an acute inflammation of the tympanum of four days' duration; the drum-head is red and bulging but not perforated, the mastoid tender to pressure but without superficial swelling.
 - 6. Give the symptoms of thrombosis of the lateral sinus.

THE MEDICAL SCHOOL.

Courses for Graduates.

1904-05.*

Abbott, Harry Daniel, PH.G. (Mass. Coll. of Pharm.) 1899, M.D. (Tufts Med. Sch.) 1904, Ames, Charles Edwin, M.D. (Hahnemann Med.

Coll. of Philadelphia) 1886,

Bailey, George Poole, M.D. (Dartmouth Med. Sch.) 1882,

Balboni, Gerardo Monari, M.D. 1904,

Brainerd, Walter Scott, M.D. (Med. Dept., Univ. of Vermont) 1883,

Bretthauer, Emilie, B.D. (The Temple Coll.) 1904, M.D. (Woman's Med. Coll. of Pennsylvania) 1904.

Bridgham, Paul Chester, M.D. (Baltimore Univ. Sch. of Med.) 1904,

Bullard, Edward Arthur (Dartmouth Med. Sch. Student),

Cooke, Snow Parker Freeman, A.B. (Acadia Coll.) 1882, M.D. (Univ. of Pennsylvania) 1886,

Cooney, John Philip, M.D. (Columbia Univ.) 1892, Deacon, Joseph Melville, M.D. (Med. Dept., Univ. of Vermont) 1883,

De Amezaga, Gualterius, M.D. (Univ. of Genoa) 1889,

Dezell, Frederick Burr, M.D. (Albany Med. Coll.) 1896.

Gardner, Charles Wesley, M.D. (Univ. of Maryland) 1901.

Gehring, Norman John, M.D. (Maine Med. Sch.) 1899, A.B. (Bowdoin Coll.) 1901,

Haddock, Charles Whitney, M.D. 1879,

Hamblen, Edward Everett, M.D. (Tufts Med. Sch.) 1898,

Salem.

Ipswich.

Natick.

Boston.

Malden.

Philadelphia, Pa.

Cohasset.

Cambridge.

Gloucester.

Providence, R. I.

Milltown, N. B.

Boston.

Lynn.

Boston.

Portland, Me. Beverly.

Bedford.

^{*} Entering after the issue of the Catalogue of 1904-05.

Harrison, William Grace, s.B. (Alabama Polytechnic Inst.) 1890, M.D. (Univ. of Maryland) 1892,

Hedback, Axel Emanuel, M.D. (Univ. of Minnesota) 1897,

Hewes, Henry Fox, A.B. 1890, M.D. 1895,

Hill, Thomas Chittenden, Ph.B. (Univ. of Vermont) 1893, M.D. (ibid.) 1895,

Jones, Elgin Wilbur, M.D. (New York Univ. Med. Coll.) 1883,

Leduc, Joseph Arthur, A.B. (Laval Univ.) 1898, M.D. (ibid.) 1902,

Lowney, Jeremiah Joseph, M.D. 1905,

Luce, Dean Sherwood, M.D. 1904,

McCrudden, Francis Henry, s.B. (Mass. Inst. of Tech.) 1900,

McDonald, Samuel James, A.B. 1897, M.D. 1901, Madden, William Daniel, A.M. (Mt. St. Mary's Coll.) 1892, M.D. (Harvard Med. Sch.) 1894,

Mahoney, Francis Xavier, M.D.v. 1892, M.D. 1905, Masten, Charles Howard, M.D. (Bellevue Hosp. Med. Coll.) 1867,

Miles, George Albert, M.D. (Long Island Coll. Hosp.) 1891,

Morse, Charles Wheeler, M.D. (Boston Univ. Sch. of Med.) 1889,

Mullin, James Heurner, M.D. (Univ. of Toronto)

Nixon, Charles Frederic, PH.G. (Mass. Coll. of Pharm.) 1884,

Normandin, Alphonse, M.D. (Baltimore Univ. Sch. of Med.) 1895,

Norton, George Edward, Ph.G. (Mass. Coll. of Pharm.) 1887, M.D. (Med. Dept., Univ. of Vermont) 1899,

Palmer, Louis James (Tufts Med. Sch. Student),

Perry, Arthur Reed, A.B. 1892, M.D. 1896,

Pratte, Arthur, M.D. (Laval Univ.) 1893,

Raymond, Loring Hay, M.D. 1903,

Scudder, Charles Locke, A.B. (Yale Univ.) 1882, PH.B. (ibid.) 1883, M.D. (Harvard Med. Sch.) 1888,

Sparhawk, Clement Willis, M.D. 1884,

Talladega, Ala.

Barron, Wis.
Boston.

Boston.

Lynn.

Montreal, Can.
Fall River.
Canton.

Boston. Brighton.

Boston.
Dorchester.

Worcester.

W. Somerville.

Salem.

Hamilton, Ont., Can.

Leominster.

New Bedford.

Cambridge.
Malden.
Boston.
Hinsdale, N. H.
Somerville.

Boston.
W. Roxbury.

Thornburgh, Robert Montgomery, M.D. (Dartmouth Med. Sch.) 1897,

Wentworth, Arthur Howard, M.D. 1891,

White, William Tisdale, M.D.v. 1897,

Woodbury, Willard Porter, A.B. 1900, M.D. 1904,

1905-06.

Ashley, William Washington, M.D. (Med. Dept., Univ. of Missouri) 1875,

Averill, George Goodwin, M.D. (Tufts Med. Sch.) 1896,

Bacon, Edward Sawyer, M.D. 1889,

Clark, Joseph Payson, A.B. 1882, M.D. 1887,

Farrell, John Thompson, M.D. (Jefferson Med. Coll.) 1886,

Grant, William Victor, M.D. (Boston Univ. Sch. of Med.) 1902,

Keleher, Francis Joseph, A.B. (Boston Coll.) 1886, M.D. (Harvard Med. Sch.) 1890,

Kelleher, Patrick Francis, M.D. (Tufts Med. Sch.) 1896,

Kerr, Isabelle Dickieson, M.D. (Tufts Med. Sch.) 1903,

McClellan, John Hancock, A.B. (Univ. of Mich.) 1897, A.M. (ibid.) 1899,

Redfearn, Joseph, M.D. (Coll. of Phys. & Surg., New York) 1873,

Sims, Frederick Robertson, M.D. 1902,

Smith, Hervey Lewis, M.D. 1903,

Taylor, Oscar Nettleton, A.B. (Univ. of California) 1894, M.D. (ibid.) 1899,

Wales, Ernest de Wolfe, s.B. 1896, M.D. 1899,

FOURTH CLASS.

Adamian, Parnag Adam, A.B. (Central Turkey Coll.) 1897, B.D. (Episcopal Theol. Sch., Cambridge) 1901,

Barker, Williston Wright, A.B. (Brown Univ.) 1902,

Bartlett, William Bradford, A.B. 1902,

Bigelow, Leslie Lawson, A.B. 1903,

Birnie, John Mathews, A.B. (Williams Coll.) 1901.

Washington, D. C.

Boston.

Newtonville. Beverly.

Ouray, Colo.

Cambridge.

Providence, R. I.

Boston.

Providence, R. I.

Lawrence.

Dorchester.

Cambridge.

Medford.

Lexington, Ky.

Hudson.

Melrose.

Smith's Ferry.

San Francisco, Cal. Braintree.

Aintab, Turkey.

Newport, R. I. Concord.

Columbus, O.

Springfield.

Boyd, David Hartin, A.B. (Wash. and Jeff. Coll.) 1902,

Bruce, Harold Milton, A.B. 1902,

Calder, Harold Granville, A.B. (Brown Univ.) 1902,

Callahan, Henry Alphonsus, A.B. (Boston Coll.) 1902.

Champion, Merrill Edwin, A.B. 1902,

Chapin, Laurence Dudley, A.B. 1902,

Chase, Gilman Leeds, A.B. 1903,

Christiernin, Charles Leonard, A.B. 1902,

Connor, William Henry, A.B. (Holy Cross Coll.) 1902,

Corbett, Jeremiah Joseph, A.B. (St. Francis Xavier's Coll.) 1899,

Crosbie, Arthur Hallam, A.B. 1903,

Darling, Arthur Edwin, A.B. (Bates Coll.) 1902,

Fassett, Fred Julius, A.B. (Yale Univ.) 1898,

Frothingham, Channing, Jr., A.B. 1902,

Godfrey, Henry White, A.B. 1902,

Goldsbury, Paul Williams, A.B. (Williams Coll.) 1892,

Goldthwaite, Ralph Harvard, A.B. 1903,

Green, Robert Montraville, A.B. 1902,

Halliday, John, A.B. 1899,

*Hamilton, Frank Andrew,

Hatch, Ralph Augustus, s.B. 1903,

Hollings, Charles Byam, A.B. 1900,

Holt, Charles Herbert, Ph.B. (Brown Univ.) 1902,

Kinnicutt, Roger, A.B. 1902,

Knoop, William Theodore, A.B. (Brown Univ.) 1901,

Knowlton, Roscoe Hosmer, A.B. 1903,

Ladd, William Edwards, A.B. 1902,

Leopold, Jerome Sam, A.B. 1903,

Maguire, Daniel Francis, A.B. 1903,

Manning, John Brown, s.B. 1903,

Metcalf, Carleton Ray, A.B. 1902,

Mixter, Charles Galloupe, s.B. (Mass. Inst. of Tech.) 1902,

Mixter, William Jason, s.B. (Mass. Inst. of Tech.) 1902,

Allegheny, Pa. Chestnut Hill.

Providence, R. I.

Jamaica Plain. Greenwood. Springfield. Randolph. E. Boston.

Pittsfield.

Peabody.

Joliet, Ill.
Auburn, Me.
Boston.
Brooklyn, N. Y.

Hampton, N. H.

Warwick.
Brighton.
Boston.
Cairo, Ill.
Somerville.
Brookline.
Cambridge.

Pawtucket, R. I. Worcester.

Providence, R. I.
W. Acton.
Milton.
Chicago, Ill.
Dorchester.
Boston.
Cambridge.

Boston.

Boston.

^{*} Entering previous to June, 1901.

Murphy, Francis Vincent, A.B. (Dartmouth Coll.) 1902,

O'Reilly, James Archer, A.B. 1902,

Peirce, Bradford Hendrick, A.B. 1902,

Penhallow, Dunlap Pearce, s.B. 1903,

Pillsbury, Henry Church, A.B. (Dartmouth Coll.) 1902.

Pollard, John William Hobbs, L.B. (Dartmouth Coll.) 1895, M.D. (Univ. of Vermont) 1901,

Pond, Lucius Beverly, A.B. (Vale Univ.) 1902,

Pratt, David Damon, s.B. (Dartmouth Coll.) 1902,

Reese, Charles Arnold, A.B. (Brown Univ.) 1902,

Richardson, Edward Peirson, A.B. 1902,

Risley, Edward Hammond, A.B. (Yale Univ.) 1902,

Rowley, John Carter, A.B. 1902,

Ruggles, Arthur Hiler, A.B. (Dartmouth Coll.) 1902,

Sanborn, Harvey Beede, A.B. (Dartmouth Coll.) 1902.

Sawyer, Wilbur Augustus, A.B. 1902,

Sparrow, Ernest Harold, A.B. 1902,

Stevens, Horace Paine, A.B. 1903,

Stone, Emil Herman, A.B. 1902,

Swift, Walter Babcock, A.B. 1901, s.B. 1903,

Sylvester, Philip Haskell, A.B. 1902,

Talty, Francis Eugene, A.B. (Manhattan Coll.) 1901,

Trimble, James Guinne, Jr., A.B. (Fiske Univ.) 1902.

Turner, Charles Sampson, Ph.B. (Brown Univ.) 1901, A.M. (ibid.) 1902,

Van Nüys, Fresenius, A.B. (Univ. of Virginia) 1899,

Wells, Orion Vassar, A.B. (Boston Univ.) 1902, Wood, Benjamin Ezra, A.B. 1901,

Wyman, John Howard, A.B. (Bowdoin Coll.) 1901,

Young, James Herbert, s.B. 1903,

THIRD CLASS.

Allen, Fred Harold, A.B. (Amherst Coll.) 1902, Ayer, James Bourne, Jr., A.B. 1903, Barnum, Francis Goodell, A.B. (Amherst Coll.) 1901, So. Boston. St. Louis, Mo. Cambridge. Montreal, Can.

Lowell.

Rochester, N. Y.
Unionville, Conn.
Boston.
Newton Highlands.

Boston.
Newburyport.

Brookline.

Jamaica Plain.

Gonic, N. H.
San José, Cal.
Cambridge.
Cambridge.
Cleveland, O.
Boston.

Newton Centre.

Buttonwoods, R. I.

Nashville, Tenn.

Providence, R. I.

Cambridge.
Arlington Heights.
Allston.
Skowhegan, Me.

Amesbury.

Holyoke. Boston.

Boston.

Univ.) 1903,

1903,

Mathewson, Earl Jerome, A.B. (Brown Univ.)

Mudge, Otis Pope, A.B. (Dartmouth Coll.) 1903,

May, Benjamin Foreman, A.B. 1903,

Peabody, Francis Weld, A.B. 1903,

Blackstone, Alfred Varney, PH.B. (Brown Univ.) Bridgewater. Brant, Austin Trafton, A.B. (Boston Univ.) 1904, Cambridge. Brown, Lloyd Thornton, A.B. 1903, Worcester. Bryant, John, Jr., A.B. 1903, Cohasset. Cady, Frederic Benjamin Mooers, A.B. 1903, Cambridge. Carr, Arthur Wyman, A.B. (Williams Coll.) 1902, A.M. (ibid.) 1903, Ashby. Congdon, Russell Thompson, A.B. (Ripon Coll.) 1903, Rivon. Wis. Cutter, Irving Taylor, A.B. 1903, Charlestown. Dailey, Michael Andrew, A.B. (Dartmouth Coll.) No. Easton. Day, Charles Orrin, Jr., A.B. (Yale Univ.) 1903, Andover. Devaney, Patrick Aloysius, A.B. (Boston Coll.) Waltham. Draper, Edwin Lyon, A.B. (Univ. of Illinois) 1902, Albany, N. Y. English, Martin Joseph, A.B. (Holy Cross Coll.) Worcester. Farnsworth, George Bourne, A.B. (Bowdoin Coll.) 1903, Boston. Fraser, Archibald McKay, A.B. (St. Francis Xavier's Coll.) 1903, E. Weymouth. Gregg, Donald, A.B. 1902, Colorado Springs, Colo. Harmer, Torr Wagner, A.B. 1903, Somerville. Heath, Charles Pliny, A.B. 1903, Wakefield. Higginbotham, Fred Augustus, s.B. (Trinity Coll.) 1902, Waltham. Hill, Lawrence Richardson, B.L. (Dartmouth Coll.) 1902, Concord, N. H. Hunt, Albert Foster, Ph.B. (Brown Univ.) 1899, Reading. Huntington, James Lincoln, A.B. (Dartmouth Coll.) 1902, Leicester. Leake, James Payton, A.B. 1903, Cambridge. Lothrop, Oliver Ames, A.B. 1903, Boston. McDonald, Charles Anthony, PH.B. (Brown

Central Falls, R. I.
Albany, N. Y.
Danvers.
Cambridge.

Providence, R. I.

Perry, Sherman, A.B. (Colby Coll.) 1901, Phipps, Cadis, A.B. 1903, Pratt, Mason Ross, A.B. 1904,

Reed, Lawrence Bradford, A.B. 1903,

Rice, John Evarts, A.B. (Boston Univ.) 1903,

Richards, Charles Maynard, A.B. (Leland Stanford Jr. Univ.) 1903,

Riley, Augustus, A.B. (Oberlin Coll.) 1903, *Ross, Wayland,

Sadler, Roy Angelo, A.B. 1904,

Shaughnessy, Michael James, A.B. (Bowdoin Coll.) 1903,

Sheahan, George Maurice, A.B. 1902,

Sidis, Boris, A.B. 1894, A.M. 1895, PH.D. 1897,

Smith, Richard Mason, A.B. (Williams Coll.) 1903.

Sobotky, Irving, s.B. (Amherst Coll.) 1903, Spooner, Lesley Hinckley, A.B. 1903,

Stanwood, Frederic Arthur, A.B. (Bowdoin Coll.) 1902,

Sturtevant, Roy Eliot, A.B. 1901, S.B. 1902, Supple, Edward Augustine, A.B. (Boston Coll.) 1903,

Swan, Lawrence Clarke, A.B. (Dartmouth Coll.) 1903.

Tyler, Fred Sylvester, A.B. (Yale Univ.) 1895, Waddell, Charles Walter, A.B. (West Virginia Univ.) 1900,

Walker, Irving James, A.B. 1903,

Wheelock, Harvey Lincoln, A.B. 1896, LL.B. (Columbia Univ.) 1899,

SECOND CLASS.

Adler, Howard Felix, s.B. (Univ. of California) 1905, Baker, Harold Woods (Lawrence Scientific Sch.

Senior),

Bernstein, Harry Saul, A.B. 1904,

Black. Edward Joseph, Ph.B. (Brown Univ.) 1904, Providence, R.I. Blanchard, Howard Parker, A.B. (Brown Univ.) 1901,

Templeton. Brockton. Worcester.

Camden, Me.

Boston.

San José, Cal. Riley, Ala. Boston. Milford.

Brockton. Quincy. Brookline.

E. Northfield. Northampton. Hingham.

Wellesley. Roxbury.

Holliston.

Stoughton. Roxbury.

Brandonville, W. Va. Malden.

Roxbury.

San Francisco, Cal.

Waltham. Roxbury.

Roxbury.

^{*} Entering previous to June, 1901.

Bond, Earl Danford, A.B. 1900, St. Paul, Minn. Booth, Ernest Lazarus, A.B. 1905 (1904), E. Boston. Boothby, Walter Meredith, A.B. 1902, Boston. Buxton, Bertram Harrington, A.B. (Brown Univ.) 1904. Providence, R.I. Cahill, John William, A.B. (Holy Cross Coll.) 1903. Worcester. Carlton, Frank Carr, s.B. 1903, Salem. Chase, Charles Otis, A.B. (Brown Univ.) 1903, Haverhill. Chase, Heman Baker, s.B. (Amherst Coll.) 1904, Hyannis. Collins, Arthur Nelson, A.B. (Univ. of Minn.) 1902. Minneapolis, Minn. Creeley, Oscar Slade, s.B. (Tufts Coll.) 1903, Belmont. Curtin, John Joseph, A.B. 1905, Waltham. Daniels, Ora George, A.B. (Tufts Coll.) 1900, Chelsea. Denning, Frederic Joseph, A.B. 1905, So. Boston. Eveleth, Samuel Chester, A.B. (Amherst Coll.) 1904. Marblehead. Fitzpatrick, Francis Joseph, A.B. (Boston Coll.) Charlestown. Jamaica Plain. FitzSimmons, Henry Joseph, A.B. 1903, Gallison, James Murry, A.B. (Brown Univ.) 1904, Franklin. Geary, Cornelius Edward, A.B. (Holy Cross Coll.) Leominster. Gray, Edward John, s.B. (St. Joseph's Univ.) 1904, Salisbury, N.B. Hall, Robert Granville, s.B. 1905, Worcester. Hartshorne, Isaac, A.B. (Amherst Coll.) 1904, Methuen. Hennelly, Thomas Patrick, A.B. (Tufts Coll.) 1904, Waltham. Hersey, Harold Waters, s.B. 1904, Hingham. Hildreth, Robert Dudley, s.B. (Amherst Coll.) Westfield. Hiltner, Walter Garfield, s.B. (Nebraska Univ.) Lincoln, Neb. 1904, Hinds, George Clarence, A.B. 1902, Allston. Hogan, Francis James, A.B. (St. Francis Xavier's Coll.) 1902, St. John, N. B. Holbrook, Charles Albert, A.B. 1900, Melrose. Jackson, Delbert Linscott, s.B. (Dartmouth Coll.) Chelsea. 1904, James, Reginald Sears, A.B. 1905, Cambridge. Janowsky, William, Ph.B. (Univ. of Rochester)

Jantzen, Francis Thomas, A.B. 1905,

Rochester, N. Y.

Lowell.

Keever, Henry Floyd, A.B. 1905 (1904), Kissock, Robert James (Harvard Coll. Senior), Lane, Clarence Guy, A.B. 1905, Lawrence, Charles Henry, Jr., A.B. 1903,

Lynch, William Francis, A.B. (Georgetown Univ.)

McCarthy, Eugene Ambrose, A.B. (Brown Univ.) 1904,

McCrudden, Francis Henry, s.B. (Mass. Inst. of Tech.) 1900,

McFarland, William, A.B. (Williams Coll.) 1904, McLaughlin, Thomas Joseph, A.B. (Mt. St. Mary's Coll.) 1902, A.M. (ibid.) 1904,

Maguire, John Francis, A.B. (Boston Coll.) 1894, Marion, James Willis Johnson, A.B. 1904,

Markolf, Harry Foster, A.B. (Middlebury Coll.) 1904.

Marks, Henry Kovál, A.B. (Leland Stanford Jr. Univ.) 1904,

Moore, Fred Porter (Lawrence Scientific Sch. Senior),

Morrison, Hyman, A.B. 1904,

Morse, George W, Jr., A.B. 1904,

Newburgh, Louis Harry, A.B. 1905 (1904),

O'Connor, Joseph William, A.B. (Holy Cross Coll.) 1903,

O'Leary, Dennis Cornelius, A.B. (Holy Cross Coll.) 1896,

O'Sullivan, William Daniel, B.L. (Dartmouth Coll.) 1900,

Porter, Karl Byron, s.B. (Univ. of Maine) 1904, Pratt, Horatio Whittemore, s.B. 1905,

Quigley, Raymond Augustine, s.B. (Mass. Agric. Coll.) 1904,

Salisbury, Lucius Albert, A.B. (Brown Univ.) 1904,

Sharpe, William James Clyde, A.B. 1904,

Smith, George Gilbert, A.B. 1905,

Swift, John Baker, Jr., A.B. 1904,

Tighe, Michael Aloysius, A.B. (Boston Coll.) 1903, Lowell. Toppan, Roland Lesley, A.B. 1904,

Tuttle, Ralph Weare, s.B. 1905,

Walsh, Edmund Francis, A.B. 1904,

Schuylkill Haven, Pa.

E. Boston.

Woburn. Boston.

E. Weymouth.

Fall River.

Boston.

Greenwich, N.Y.

Woonsocket, R. I. Jamaica Plain. Allston.

W. Rutland, Vt.

San Francisco, Cal.

Cambridge.

Boston.

Clinton.

Cincinnati, O.

Rutland.

Providence, R. I.

Laurence.

Oldtown, Me.

Grafton.

Brockton.

Sandy Creek, N.Y. Philadelphia, Pa.

E. Orange, N.J.

Boston.

Malden.

E. Andover, N.H.

Boston.

Welker, Leo Edward, PH.B. (Iowa Coll.) 1903, Colfax, Ia. West, Frederick Orra, s.B. 1905, Whittemore, William Stewart, A.B. 1904, Worthen, Clarence Field, s.B. (Univ. of Vermont) 1903,

Woburn. Cambridge.

Barre, Vt.

FIRST CLASS. Almy, Thomas, A.B. 1905, Fall River. Ashley, Robert Warren, A.B. (Univ. of Colorado) 1904, Ouray, Colo. Bowditch, Harold, A.B. 1905, Jamaica Plain. Brickley, William Joseph, Charlestown. Brigham, Francis Gorham, s.B. (Colgate Univ.) 1905. Flushing, N.Y. Burns, Newell Bly, A.B. 1905, Danvers. Canto, Ysidio Herrera, s.B. (Boston Univ.) 1900, Mérida, Mexico. Chmielinski, Harry, A.B. (Holy Cross Coll.) 1904, So. Boston. Conway, Charles Joseph, A.B. (Holy Cross Coll.) 1899. Millville. Cornish, Solon Washington, A.B. (Dartmouth Coll.) 1905. Carver. Crothers, Bronson, A.B. 1905, Cambridge. Crowley, Thomas Francis, A.B. (Boston Coll.) 1903, Holliston. Davis, Nelson Clifton (Lawrence Scientific Sch. Senior), Providence, R.I. Dennen, Ralph Waite, A.B. 1905, Waltham. Fitz, Reginald (Harvard Coll. Senior), Roston. Fox, Michael Bernard, A.B. (Clark Univ.) 1905, Worcester. Freese, John Andrew, A.B. (Univ. of Illinois) 1902,

Cadwell, Ill.

Garfield, Walter Thompson (Lawrence Scientific Cambridge. Garlough, Francis Earl, A.B. (Bates Coll.) 1900, Hillsdale, Mich. Ghoreyeb, Albert Alphonso Wood, A.B. (Syrian Jaffa, Syria.

Gardiner, Me.

Lynchburg, Va. Lexington. Greene, John Adolph, A.B. (Bowdoin Coll.) 1903, Boston.

Graves, Allen Bouthrod, A.B. (Dartmouth Coll.) 1905, Greeley, Hugh Payne (Harvard Coll. Senior),

Sch. Senior),

Protestant Coll.) 1904,

Giddings, Harold Girard, A.B. 1901,

† Admitted by special vote of the Administrative Board.

Baltimore, Md.

Providence, R.I.

Holden.

Boston.

Roston.

Allston.

Somerville.

Hall, Reverdy Morriss, Jr., A.B. 1905,

Healey, John Joseph, PH.B. (Brown Univ.) 1905, Hendricks, Henning Vitalis, s.B. (Worcester

Polytech. Inst.) 1903,

Hepburn, James Joseph (Harvard Coll. Senior). Hermann, Otto John (Harvard Coll. Senior),

†Heydemann, Martin,

Hinds, Robert Watson, A.B. 1905,

Howard, Arthur Allison, Ph.B. (Brown Univ.) 1905.

Hunt, Roscoe Cadwell, A.B. (Carleton Coll.) 1905, Hurley, Daniel Joseph (Harvard Coll. Senior),

1905,

Kennedy, Philip Thomas, A.B. (Trinity Coll.) 1905.

Kilgore, Eugene Sterling, s.B. (Univ. of California) 1904,

Lamson, Paul Dudley, A.B. 1905,

Laskey, Edward Philip, s.B. (Dartmouth Coll.) 1904.

Lyons, George Aloysius, A.B. (Boston Coll.) 1905, McKenna, Edward Francis, A.B. (Brown Univ.) 1905,

MacMillan, Andrew Louis, Jr., A.B. (Dartmouth Coll.) 1905,

Macomber, Donald (Harvard Coll. Senior),

†Madden, John Joseph, PHARM.D. (Mass. Coll. of Pharm.) 1903,

Manton, Walter Williamson, A.B. 1905,

Miller, William Theodore, Jr., A.B. (Adelbert Coll.) 1905,

Neill, Mather Humphrey, A.B. (Amherst Coll.)

Nelson, Christian Augustus, A.B. (Brown Univ.) 1903.

Niles, John Otis Garfield (Harvard Coll. Senior), Boston. Noonan, William Andrew (Harvard Coll. Senior), Cambridge.

†O'Donoghue, Edward John,

O'Keeffe, James Vincent, A.B. 1905,

Overlander, John Eliot, PH.B. (Yale Univ.) 1905, Hiawatha, Kan. Parker, Willard Stephen (Harvard Coll. Senior), Piqua, O.

Wakefield. Blue Earth, Minn.

Charlestown.

Ish, George William Stanley, A.B. (Yale Univ.)

Dover, N.H.Winchester.

Worcester.

Providence, R.I.

Little Rock, Ark.

Hartford, Conn.

Oakland, Cal.

Hanover.

Newtonville.

Worcester. Detroit, Mich.

Cleveland, O.

Boston.

Quincy.

Peterboro, N.H.

Revere.

[†] Admitted by special vote of the Administrative Board.

Patch, Arthur Lionel, A.B. (Brown Univ.) 1904, Stoneham. Pemberton, Frank Arthur (Lawrence Scientific

Sch. Senior),

Power, George Aloysius, A.B. (Holy Cross Coll.) 1905.

Preble, William Emerson, A.B. (Bowdoin Coll.)

1898, Prescott, George Lincoln (Harvard Coll. Senior),

Reid, William Duncan (Harvard Coll. Senior), Riley, William Bernard, A.B. (Holy Cross Coll.)

1905,

Rounseville, Wilfred Ellsworth, s.B. (Amherst Coll.) 1905,

Sampson, Edwin Field (Lawrence Scientific Sch. Senior),

Smith, Harold Heber, A.B. (Leland Stanford Jr. Univ.) 1905,

Smyth, Duncan Campbell, A.B. (St. Francis Xavier's Coll.) 1905,

Soule, William Lamson, A.B. (Colby Coll.) 1890, M.D. (Boston Univ.) 1896,

Sparrow, Charles Atsatt (Amherst Coll. Senior), Stack, John Joseph, A.B. (Holy Cross Coll.) 1902,

Stankard, Thomas Francis, A.B. (Holy Cross Coll.) 1904,

Steinharter, Edgar Clifford (Mass. Inst. of Tech. Senior),

Sullivan, John Henry, Jr., A.B. (Boston Coll.) 1903.

Swaim, Loring Tiffany, A.B. 1905,

Titus, Raymond Stanton, A.B. 1905,

Tron, Stanley Emanuele (Royal Liceo Gioberti, Turin, Italy), 1903,

Walker, William Joseph, A.B. (Holy Cross Coll.) 1904.

Webster, Harrison Briggs, A.B. 1905,

Wilkiemeyer, Frederick Joseph, A.B. (Christian Brothers' Coll.)

Wilkins, Samuel Henry, Jr. A.B. (Dartmouth Coll.) 1905,

Young, Edward Lorraine, Jr. (Harvard Coll. Senior),

Auburndale.

Worcester.

Litchfield, Me.

Concord.

Newton.

Central Falls, R.I.

Attleboro.

Newtonville.

Worcester.

Port Hood, N.S.

Waterville, Me. Mattapoisett.

Boston.

Waltham.

Cincinnati, O.

Dorchester.

Cambridge.

No. Haverhill, N. H.

Torre Pellice, Italy.

Providence, R.I. Cohasset.

Newport, Ky.

W. Somerville.

No. Hanover.

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SUMMARY.

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THE SUMMER SCHOOL OF MEDICINE.

Alsever, William Dewey, s.B. (Syracuse Univ.) 1896, M.D. (ibid.) 1900, Syracuse, N.Y. Amsden, Henry Hubbard, CH.B. (Boston Univ.) 1895, M.D. (ibid.) 1896, Attleboro. Auer, John, s.B. (Univ. of Michigan) 1898, M.D. (Johns Hopkins Med. Sch.) 1902, New York, N.Y. Ayer, James Bourne, Jr., A.B. 1903, Boston. Bacon, Newton Samuel, A.B. 1895, M.D. 1899, Cambridge. Balboni, Gerardo Monari, M.D. 1904, Boston. Baldauf, Leon Kahn, A.B. (Johns Hopkins Univ.) 1901, M.D. (ibid.) 1905, Henderson, Ky. Baldwin, Jane North, M.D. (Cornell Univ. Med. Sch.) 1900, Rutland, Vt. Barnum, Francis Goodell, A.B. (Amherst Coll.) Auburndale. Barry, Joseph Francis, New York, N.Y. Bassow, George Joseph, M.D. (Baltimore Univ. Sch. of Med.) 1899, Athol. Behan, Richard Joseph, M.D. (Western Penna. Med. Sch.) 1902, Pittsburg, Pa. Bitzer, Emory West, M.D. (Univ. of Virginia) Lexington, Va. Blackman, Alfred Atwater, M.D. (Denver Sch. of Colorado Springs, Colo. Med.) 1902, Blakely, David Newton, A.B. (Dartmouth Coll.) 1889, M.D. (ibid.) 1896, Roxbury. Bloomberg, Senior, M.D. (Western Penna. Med. Pittsburg, Pa. Sch.) 1905, Bommarito, Paolo, Boston. Boyd, David Hartin, A.B. (Washington and Jeffer-Allegheny, Pa. son Coll.) 1902, Bridge, Albert Wellington, M.D. (Medical Dept., Frelighsburg, Can. Univ. of Vermont) 1905,

Thompsonville, Conn

Bridge, John Law, s.B. (Wesleyan Univ.) 1888,

M.D. (Harvard Med. Sch.) 1903,

Bryant, John, Jr., A.B. 1903, Cohasset. Burnham, Mary Lilliah, M.D. (Woman's Medical Coll. of Pennsylvania) 1896, Chinanfu, China. Butterworth, William Walton, M.D. (Medical Dept., Tulane Univ.) 1894, New Orleans, La. Cahill, Francis Joseph, A.B. (Cornell Univ.) 1903, Hoosick Falls, N. Y. Carey, Francis Arthur, M.D. (Baltimore Medical Coll.) 1905, Taunton. Carlton, Frank Carr, s.B. 1903, Salem. Carvill, Lizzie Maud, A.B. (Tufts Coll.) 1899, M.D. (ibid.) 1905, Somerville. Chace, Fenner Albert, A.B. 1897, M.D. 1905, Fall River. Cheney, William Elisha, M.D. 1890, Boston. Clarke, Israel James, M.D. (New York Univ.) 1883. Haverhill. Cleaves, Harry Franklin, Bar Harbor, Me. Cobb, Charles Duane, M.D. (St. Louis Univ.) 1904, Neponset. Condict, Alice Byram, M.D. (Chicago Homeop. Morristown, N.J. Med. Sch.) 1883, Coté, Honore J, M.D. (Tufts Med. Sch.) 1899, Boston. Couret, Maurice, A.M. (Jesuits' Coll., New Orleans, La.) 1893, M.D. (Medical Dept., Tulane Univ.) 1896, New Orleans, La. Cousens, Nicholas William, M.D. (Trinity Univ., Toronto, Can.) 1891, Waltham. Cox, Joseph Ambrose, M.D. (Albany Med. Coll.) 1901. Albany, N.Y. Cragin, Charles Langmaid, M.D. (Medical Sch. of Maine) 1904, Norway, Me. Crockett, Montgomery Adams, A.B. (Harvard Univ.) 1882, M.D. (Bellevue Hospital Med. Coll.) 1885, Buffalo, N.Y. Croston, John Francis, M.D. (Univ. of New York) Haverhill. Curran, George Robert, M.D. (Univ. of Michigan) 1892, Mankato, Minn. Cushman, Marshall Laurence, Brockton. Cutter, Irving Taylor, A.B. 1903, Brookline. Dailey, Michael Andrew, A.B. (Dartmouth Coll.) 1904, No. Easton. Daly, Timothy Joseph, M.D. 1897, Lawrence.

Boston.

Springfield.

Dana, Harold Ward, A.B. 1900, M.D. 1905,

Davis, Ernest Leland,

Davis, Nelson Clifton,

Day, Charles Orrin, Jr., A.B. (Yale Univ.) 1903,
 Derby, Arthur Putnam, M.D. (Univ. of Virginia) 1904,

Derr, John Sebastien, M.D. (*Univ. of Virginia*) 1905.

Derry, Louis Andrew, A.B. (Holy Cross Coll.) 1902,

Dickinson, Elijah Thomas, s.B. (Trinity Coll., N.C.) 1894, M.D. (Medical Coll. of Virginia) 1895,

Dobson, Josie Helen,

Donnelly, James Harvey, A.B. (Williams Coll.) 1894, M.D. (Boston Univ. Sch. of Med.) 1897,

Donnelly, William Henry, M.D. (Baltimore Medical Coll.) 1904,

Doust, Henry Burton, M.D. (Coll. of Medicine, Syracuse Univ.) 1900,

Drake, Arthur Knowlton, M.D. 1898,

Drury, Dana Warren, M.D. 1904,

Durant, Charles Edwin, M.D. 1885,

Farnsworth, George Bourne, A.B. (Bowdoin Coll.) 1903,

Ferguson, Walter Smith, M.D. (Univ. of Virginia) 1905,

Ferren, Frank Leslie,

Fisher, Stanwood Elmer,

Fitzgerald, Clara Pauline, M.D. (Woman's Med. Coll. of Pennsylvania) 1897,

Foster, George Sanford,

Freese, John Andrew, A.B. (Univ. of Illinois) 1902,

Fuller, Edwin Motley, Jr., A.B. (Bowdoin Coll.) 1901, M.D. (Med. Sch. of Maine) 1904,

Garnett, Alexander Yelverton Peyton,

Gehring, Edwin Wagner, s.B. (Cornell Univ.) 1900, m.D. (Med. Sch. of Maine) 1904,

Gibson, Arthur Robert,

Goodell, William, A.B. (Amherst Coll.) 1901, M.D. (Harvard Med. Sch.) 1905,

Gould, Arthur Richard, M.D. (Baltimore Med. Coll.) 1903,

Gove, Harry Frederick, M.D. (Boston Univ. Sch. of Med.) 1900, Providence, R.I. Andover.

Gordonsville, Va.

Boston.

Portland, Me.

Fremont, N.C.
Washington, D.C.

Hoosick, N.Y.

Neponset.

Syracuse, N.Y. Bristol, N.H. Roxbury. Haverhill.

Boston.

Lynchburg, Va. Levant, Me. Portland, Me.

Worcester. Boston.

Cadwell, Ill.

Bath, Me.
Earlehurst, Va.

Portland, Me. Buffalo, N. Y.

Amherst.

Seattle, Wash.

Chelsea.

Halsey, John Taylor, M.D. (Coll. of Phys. & Surg., New York) 1893,

Hamilton, Allen, A.B. (Williams Coll.) 1898, M.D. (Coll. of Phys. & Surg., New York) 1902,

Hamilton, Frank Andrew,

Hanson, William Clinton, A.B. 1899,

Harlow, William Page, M.D. (Univ. of Michigan) 1899,

Hebert, Joseph Second, M.D. (Med. Dept., Tulane Univ.) 1901,

Hills, Charles Everett, M.D. (Dartmouth Med. Sch.) 1901,

Hinchey, Richard, M.D. 1898,

Hooker, Edward Dwight, M.D. 1884,

Hope, Robert,

Hubbell, Adelbert Merton, M.D. (Boston Univ. Sch. of Med.) 1889,

Huntington, James Lincoln, A.B. (Dartmouth Coll.) 1902,

Jillson, Franklin Campbell, M.D. 1886,

Johnson, Loren Bascom Taber, M.D. (Georgetown Univ.) 1900,

Jones, Frederick Elmer, M.D. (Baltimore Univ. Sch. of Med.) 1897,

King, Charles Lee, M.D. (Northwestern Univ.) 1880.

Kistler, Herbert Daniel, s.B. (St. Louis Univ.) 1905, M.D. (ibid.) 1905,

Knowles, William Fletcher, M.D. 1885,

La Rose, Victor Joseph, M.D. (Univ. of Minnesota) 1901.

Lawson, Stuart Johnston, M.D. (Univ. of Virginia) 1905,

Leathers, Waller Smith, M.D. (Univ. of Virginia)

Lee, William Philander, M.D. (Univ. of Minnesota) 1894,

Leonard, William Humphrey, M.D. (New York Homeop. Med. Coll. & Hosp.) 1891,

Leopold, Jerome Sam, A.B. 1903,

Lobo, José Paulo Filomeno Piedade Martinto, M.D. (Medico-Chirurgical Sch., Lisbon, Portugal) 1900, New Orleans, La.

Fort Wayne, Ind. Somerville. Cambridge.

Boulder, Colo.

New Orleans, La.

So. Natick.
Waltham.

Arlington.
Wellington, Australia.

Haverhill.

Cambridge. W. Roxbury.

Washington, D. C.

Roxbury.

Pasadena, Cal.

Clinton, Mo. Boston.

Mandan, No. Dak.

Burkes Garden, Va.

University, Miss.

Fairfax, Minn.

Tully, N.Y. Chicago, Ill.

Fall River.

Logan, Samuel, M.D. (Med. Dept., Tulane Univ.) 1900,

Lothrop, Oliver Ames, A.B. 1903,

Love, Andrew Jackson, M.D. (Meharry Med. Coll.) 1890,

Lowney, John Francis, M.D. (Tufts Med. Sch.) 1900.

Lowney, Jeremiah Joseph, M.D. 1905,

Lyons, Randolph, A.B. (Yale Univ.) 1903,

McCarthy, Timothy Francis, A.B. (Holy Cross Coll.) 1892, M.D. (Harvard Med. Sch.) 1896,

McCormick, Cornelius Joseph, M.D. 1876,

McFarland, William, A.B. (Williams Coll.) 1904, McGrath, Bernard Francis, A.B. (Georgetown

Univ.) 1894, M.D. (ibid.) 1895,

Macht, David Israel, A.B. (Johns Hopkins Univ.) 1902,

McKee, George Joseph,

McLaughlin, Harry Valentine, L.R.C.P. (Edinburgh), L.R.C.S. (Dublin) 1884,

McSweeney, Roland, M.D. (Med. Dept., Univ. of Vermont) 1892,

Mahoney, Francis Xavier, M.D.V. 1892, M.D. 1905, May, Benjamin Foreman, A.B. 1903,

Meis, Edward William, M.D. (Med. Dept., State Univ. of Iowa) 1900,

Miles, George Albert, M.D. (Long Island Coll. Hosp.) 1891,

Miller, Malcolm Dean, A.B. 1901, M.D. 1905,

Mitchell, Arthur, M.D. (Boston Univ. Sch. of Med.) 1886,

Mitchell, Sidney, Jr.

Mosher, Marshall James, M.D. (Med. Dept. Univ. of Vermont) 1889,

Newell, Harry Ward, A.B. (Dartmouth Coll.) 1895, M.D. (Baltimore Med. Coll.) 1900,

Norton, Daniel Capron, s.B. (Dartmouth Coll.) 1904,

Noyes, Guy Lincoln, M.D. (*Univ. of Michigan*) 1901,

O'Brien, Daniel Paul, M.D. 1904,

O'Connor, John Christopher, s.B. (Dartmouth Coll.) 1902, M.D. (Med. Sch. of Maine) 1905, New Orleans, La.
Boston.

Chattanooga, Tenn.

Fall River.

Fall River.
New Orleans, La.

E. Boston.
Waltham.

Greenwich, N. Y.

Beverly.

Baltimore, Md. Allegheny, Pa.

Brookline.

St. Johnsbury, Vt.
Dorchester.

Albany, N.Y.

Carroll, Ia.

W. Somerville. Cambridge.

Medfield. Saranac, N. Y.

Waltham.

W. Derry, N. H.

New Britain, Conn.

Columbia, Mo. Chelsea.

Bradford.

Pardo, Oscar,

Parke, Thomas Duke, M.D. (New York Univ.) 1879.

Parker, Trueman Alfred, A.B. (Hampden-Sidney Coll.) 1895, M.D. (Univ. Coll. of Med., Richmond, Va.) 1899,

Peabody, Francis Weld, A.B. 1903,

Peebles, Alvin Roy,

Perkins, Harry Bradford, M.D. (Med. Dept., Univ. of Vermont) 1903,

Phelps, William Davies,

Pike, Forrest Fay, M.D. 1898,

Pollard, John Beverley, M.D. (Univ. of Virginia) 1904,

Pollard, John William Hobbs, B.L. (Dartmouth Coll.) 1895, M.D. (Med. Dept., Univ. of Verment) 1901,

Potter, Peter, s.m. (Univ. of Missouri) 1903, m.d. (ilid.) 1903,

Powers, Herbert Hale, s.B. (Wesleyan Univ.) 1900, M.D. (Miami Med. Coll.) 1904,

Pratt, George Loring, A.B. (Bowdoin Coll.) 1901, M.D. (Med. Sch. of Maine) 1904,

Priest, Herbert Bancroft, A.B. 1897, M.D. 1901,

Ramstad, Niles Oliver, M.D. (Univ. of Minnesota)
1899,

Redmond, Sidney Dillon, A.B. (Rust Univ.) 1894, M.D. (Illinois Med. Coll.) 1897,

Reed, Lawrence Bradford, A.B. 1903,

Reynolds, John Timothy, M.D. (Baltimore Med. Coll.) 1905,

Roberts, Stewart Ralph, M.D. (Atlanta Coll. of Phys. & Surg.) 1900, A.B. (Emory Coll.) 1902, S.B., S.M. (Univ. of Chicago) 1904,

Rowley, William, M.D. (Baltimore Med. Coll.) 1893.

Russell, James Percy, A.B. (Bowdoin Coll.) 1897, M.D. (Med. Sch. of Maine) 1903,

Sailer, Roy Angelo, A.B. 1904,

Scott. Ernest Winfield,

Seelve, Walter Clark, A.B. (Amherst Coll.) 1895, M.D. (Harvard Med. Sch.) 1899,

Shaw, John Joseph, Jr.

Rochester, N.Y.

Birmingham, Ala.

Richmond, Va.
Cambridge.

Grand Rapids, Mich.

Bakersville, Vt. Cambridge. Melrose.

Charlottesville, Va.

Haverhill.

St. Louis, Mo.

Brookline.

Farmington, Me. Groton.

Bismarck, No. Dak.

Jackson, Miss. Brockton.

Woburn.

Oxford, Ga.

Gloucester.

Augusta, Me.
Milford.
Eudora, Ark.

Worcester.
Providence, R.I.

Sheahan, George Maurice, A.B. 1902,

Smith, Charles Leonard, A.B. (State Univ. of Iowa) 1891, M.D. (ibid.) 1904,

Smith, Peter Mathew, M.D. (Georgetown Univ.) 1894,

Soule, William Lamson, A.B. (Colby Coll.) 1890, M.D. (Boston Univ. Sch. of Med.) 1896,

Southwick, George Rinaldo, M.D. (Harvard Med. Sch.) 1898, L.R.C.P. (London) 1904, M.R.C.S. (England) 1904,

Sprague, Frank Bradford, M.D. (Med. Dept., Univ. of Vermont) 1889,

Sterling, Eunice Blanche, M.D. (Woman's Med. Coll. of Baltimore) 1905.

Stone, Ellen Appleton, A.B. (Radeliffe Coll.) 1895, A.M. (Brown Univ.) 1896, M.D. (Johns Hopkins Med. Sch.) 1900,

Strong, Lawrence Watson, A.B. 1892, M.D. 1896, Sturtevant, Roy Eliot, A.B. 1901, S.B. 1902,

Taylor-Jones, Louise, A.B. (Wellesley Coll.) 1896, s.M. (Columbian Univ.) 1898, M.D. (Johns Hopkins Med. Sch.) 1903,

Tindolph, Lea Woodsworth,

Travis, Catherine Hutchison, A.B. (McGill Univ.) 1895, M.D. (Johns Hopkins Med. Sch.) 1903, Tuffs, Edward Gilbert, M.D. (New York Univ.)

Vinal, Charles Renough,

1879,

Watkins, Anderson, M.D. (Med. Dept., Arkansas Univ.) 1897,

Welpton, Hugh Gilman, M.D. (Drake Univ.) 1896, Weysse, Arthur Wisswald, A.M. 1892, Ph.D. 1894,

Willis, Archille Murat, M.D. (Med. Coll. of Virginia) 1905,

Wills, William LeMoyne, M.D. (Med. Dept., Univ. of Pennsylvania) 1882,

Winslow, Guy Munroe, A.B. (*Tufts Coll.*) 1895, PH.D. (*ibid.*) 1898,

Young, William Hamilton, M.D. (Albany Med. Coll.) 1899, Quincy.

Sionx City, Ia.

Boston.

Brighton.

Boston.

Providence. R.I.

Baltimore, Md.

Providence. R.I. Waban.

Roxbury.

Washington, D.C. Charlottesville, Va.

New Britain, Conn.

New York, N. Y.
Dorchester.

Little Rock, Ark.

Des Moines, Ia.

Boston.

Richmond, Va.

Los Angeles, Cal.

Auburndale.

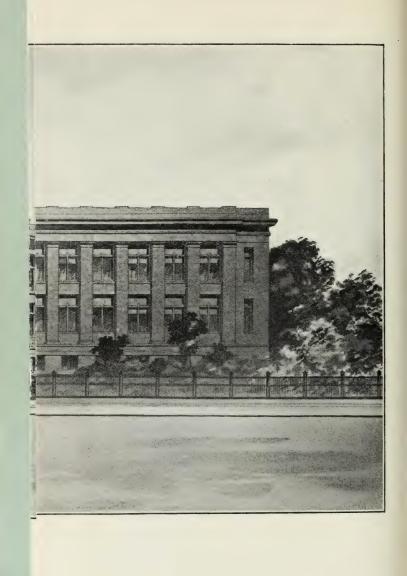
Hornesville, N.Y.







THE NEW BUILDINGS OF THE HARVARD MEDICAL SCHOOL.



ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

· LONGWOOD AVENUE, BOSTON, MASS.

OF

HARVARD UNIVERSITY

FOR

1906-07

SECOND EDITION



CAMBRIDGE
Published by the University
1906

1906.					1907.															
JULY.					JANUARY.					JULY.										
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MEDICAL SCHOOL CALENDAR.

1906.

Sept. 20, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.

- Sept. 26, Wednesday. Examination in Chemistry for admission.
- Sept. 27, Thursday. Academic Year begins. Registration of Students.
- Oct. 1, Monday. LCT day f r receiving applications for the Bullard Fellowships.
- Nov. 1, Thursday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 29, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Friday. Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1906, TO JAN. 2, 1907, INCLUSIVE. 1907.

- Jan. 1, Tuesday. Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Tuesday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1907.
- Jan. 30, Wednesday. Mid-year Examinations begin.
- Feb. 1, Friday. Second half-year begins.
- Feb. 22, Friday. Washington's Birthday: a holiday.
- April 1, Monday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 14 TO APRIL 20, INCLUSIVE.

May 1, Wednesday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.

- May 1, Wednesday. Last day for receiving applications of candidates for the degree of M.D. in 1907.
- May 30, Thursday. Memorial Day: a holiday.
- June 1, Saturday. Last day for receiving applications for Scholarships for 1907-08 (except the Cheever and Hayden Scholarships).
- June 1, Saturday. Examinations begin.
- June 26, Wednesday. Commencement.
- SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 25, INCLUSIVE.
- June 27, Thursday. Examination in Chemistry for admission.
- Sept. 19, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 25, Wednesday. Examination in Chemistry for admission.
- Sept. 26, Thursday. Academic Year begins. Registration of Students.
- Oct. 1, Tuesday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Friday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 28, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Saturday. Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL.

FACULTY OF MEDICINE.*

- CHARLES W. ELIOT, A.M., LL.D., PRESIDENT.
- WILLIAM L. RICHARDSON, M.D., DEAN, and Professor of Obstetrics.
- CLARENCE J. BLAKE, M.D., Professor of Otology.
- J. COLLINS WARREN, M.D., LL.D., Hon. F.R.C.S. (Eng.), Moseley Professor of Surgery.
- REGINALD H. FITZ, M.D., LL.D., Hersey Professor of the Theory and Practice of Physic.
- THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.
- JOHN H. McCOLLOM, M.D., Assistant Professor of Contagious Diseases.
- JAMES J. PUTNAM, M.D., Professor of Diseases of the Nervous System.
- ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.
- FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical Medicine.
- EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.
- CHARLES A. BRACKETT, D.M.D., Professor of Dental Pathology.
- THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.
- EUGENE H. SMITH, D.M.D., Professor of Mechanical Dentistry and Orthodontia, and Dean of the Dental School.
- WILLIAM F. WHITNEY, M.D., John Barnard Swett Jackson Curator of the Warren Anatomical Myseum.
- CHARLES S. MINOT, S.D., LL.D., D.Sc., James Stillman Professor of Comparative Anatomy.
- MAURICE H. RICHARDSON, M.D., Professor of Clinical Surgery.
- CHARLES M. GREEN, M.D., Associate Professor of Obstetrics and Clinical Gynaecology, and Secretary of the Faculty of Medicine.
- EDWARD C. BRIGGS, M.D., D.M.D., Professor of Dental Materia Medica and Therapeutics.
- HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.
- WILLIAM T. COUNCILMAN, M.D., Shattuck Professor of Pathological Anatomy.
- MYLES STANDISH, M.D., Assistant Professor of Ophthalmology.
- HAROLD C. ERNST, M.D., Professor of Bacteriology.
- CHARLES HARRINGTON, M.D., Professor of Hygiene.
- * Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

WILLIAM H. POTTER, D.M.D., Professor of Operative Dentistry.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

JOHN T. BOWEN, M.D., Assistant Professor of Dermatology.

HENRY JACKSON, M.D., Instructor in Clinical Medicine.

GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine. ALGERNON COOLIDGE, JR., M.D., Assistant Professor of Laryngology.

FRANZ PFAFF, M.D., Professor of Pharmacology and Therapeutics. THEOBALD SMITH, M.D., George Fabyan Professor of Comparative Pathology.

WILLIAM T. PORTER, M.D., Professor of Comparative Physiology.

JAMES G. MUMFORD, M.D., Instructor in Surgery.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

JOHN B. BLAKE, M.D., Instructor in Surgery.

HOWARD A. LOTHROP, M.D., Instructor in Surgery.

JOHN L. MORSE, M.D., Assistant Professor of Pediatrics.

CHARLES A. PORTER, M.D., Instructor in Surgery.

EDWARD W. TAYLOR, M.D., Instructor in Neurology.

RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.

ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic.

JAMES H. WRIGHT, M.D., S.D., Instructor in Pathology.

CARL L. ALSBERG, M.D., Instructor in Biological Chemistry.

JOHN L. BREMER, M.D., Demonstrator of Histology.

WALTER B. CANNON, M.D., George Higginson Professor of Physiology.

JOHN WARREN, M.D., Demonstrator of Anatomy.

FREDERIC T. LEWIS, M.D., Assistant Professor of Embryology.

ELMER E. SOUTHARD, M.D., Assistant Professor of Neuropathology.

STANDING COMMITTEES FOR THE MEDICAL SCHOOL.

Course of Study. - Dr. Fitz (Chairman), and Drs. W. L. Richardson, Shattuck, Minot, Burrell, Mallory, and Cannon.

Nominations. — Dr. Bradford, (Chairman), and Drs. Ernst, Harrington, Bowen, and Jackson.

Graduate and Summer Courses. - Dr. Mallory (Chairman), and Drs. Green, Morse, Cabot, Joslin, Greenough, and J. Warren.

Admission. — Dr. W. L. Richardson (Chairman), and Drs. Green and Mallory.

Students' Health. - Dr. Ernst (Chairman), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

THE MEDICAL SCHOOL.

BOSTON.

GENERAL STATEMENT.

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of Bachelor of Medicine; beginning with 1811, the degree has been Doctor of Medicine. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first Medical College was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 55.

The degree of Doctor of Medicine cum laude is given to candidates who obtain an average of 80 per cent, or over in all the required examinations.

Beginning in 1906, special students, not candidates for the degree of Doctor of Medicine, will be admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 66.

Pamphlets descriptive of the many courses of study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass.

The New Buildings.

In September, 1906, the Medical School removed from its quarters on Boylston Street to commodious new buildings on Longwood Avenue, distant about a mile from the old building. At the new site the School possesses twenty-six acres of land. Eleven acres are now occupied by the Medical School buildings; the other fifteen are reserved for hospitals which, it is hoped, will be built on this ground in the near future.

The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, and biological chemistry; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) hygiene, pharmacology, comparative pathology, and surgical research.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been designed on a unit system, which will greatly simplify any changes re-





quired by future growth or by uses other than those for which the rooms were originally designed. These buildings will provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

ADMINISTRATIVE BOARD.

WILLIAM L. RICHARDSON, M.D., DEAN, and Professor of Obstetrics.
J. COLLINS WARREN, M.D., LL.D., Hon. F.R.C.S., Professor of Surgery.

FREDERICK C. SHATTUCK, M.D., Professor of Clinical Medicine.
WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum.

CHARLES M. GREEN, M.D., Secretary, and Associate Professor of Obstetrics and Clinical Gynaecology.

CHARLES HARRINGTON, M.D., Professor of Hygiene.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

WALTER B. CANNON, M.D., Professor of Physiology.

JOHN WARREN, M.D., Demonstrator of Anatomy.

Office Hours of the Dean, Monday and Thursday, 4 to 5 p.m.; of the Secretary, Wednesday and Friday, 5 to 6 p.m.

STANDING COMMITTEES.

Building.—Dr. Whitney (Chairman), and Drs. W. L. Richardson and J. Warren.

Advertising and Catalogue. — Dr. Green (Chairman), and Drs. Mallory and Cannon.

Library. — Dr. Cannon (Chairman), and Drs. Shattuck and Harrington. Warren Museum. — Dr. J. C. Warren (Chairman), and Drs. Whitney and Mallory.

Fellowships. - Dr. Shattuck (Chairman), and Drs. J. C. Warren, Whitney, Harrington, and Mallory.

Scholarships and Students' Aid. - Dr. W. L. Richardson (Chairman), and Drs. Green and Cannon.

INSTRUCTORS, LECTURERS, AND ASSISTANTS.*

EDWARD COWLES, M.D., LL.D., Instructor in Mental Diseases. SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

GEORGE W. GAY, M.D., Lecturer on Surgery.

^{*} Arranged on the basis of collegiate seniority.

ABNER POST, M.D., Instructor in Syphilis.

GEORGE T. TUTTLE, M.D., Clinical Instructor in Mental Diseases.

SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

GEORGE H. MONKS, M.D., M.R.C.S., Lecturer on Surgery.

FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery.

FRANCIS B. HARRINGTON, M.D., Lecturer on Surgery.

PHILIP COOMBS KNAPP, M.D., Clinical Instructor in Diseases of the Nervous System.

ROBERT W. LOVETT, M.D., Instructor in Orthopedics.

WILLIAM NOYES, M.D., Clinical Instructor in Mental Diseases.

JOSEPH P. CLARK, M.D., Assistant in Laryngology.

PIERRE JANET, M.D., Lecturer on the Major Symptoms of Hysteria.

ELLIOTT G. BRACKETT, M.D., Instructor in Orthopedics.

ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.

FREDERIC C. COBB, M.D., Instructor in Laryngology.

EDWIN E. JACK, M.D., Instructor in Ophthalmology.

PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery.

GEORGE A. CRAIGIN, M.D., Clinical Instructor in Pediatrics.

JOEL E. GOLDTHWAIT, M.D., Instructor in Orthopedics.

MALCOLM STORER, M.D., Assistant in Gynaecology.

JOHN W. BARTOL, M.D., Assistant in Clinical Medicine.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

ELISHA FLAGG, M.D., Assistant in Anatomy.

JAMES M. JACKSON. M.D., Assistant in Clinical Medicine.

 ${\bf ALEXANDER~QUACKENBOSS,~M.D.,~Instructor~in~Ophthalmology.}$

FRANKLIN G. BALCH, M.D., Assistant in Surgery.

EUGENE A. CROCKETT, M.D., Instructor in Otology.

JOHN DANE, M.D., Instructor in Orthopedics.

FRED B. LUND, M.D., Assistant in Surgery.

EZRA R. THAYER, LL.B., Lecturer on the Relation of the Medical Profession to the Law and the Courts.

HARVEY P. TOWLE, M.D., Assistant in Dermatology.

GEORGE W. W. BREWSTER, M.D., Assistant in Surgery.

JOSEPH L. GOODALE, M.D., Assistant in Laryngology.

JAMES S. STONE, M.D., Assistant in Surgery.

ROCKWELL A. COFFIN, M.D., Assistant in Laryngology.

PHILIP HAMMOND, M.D., Instructor in Otology.

HENRY H. HASKELL, M.D., Assistant in Ophthalmology.

HENRY F. HEWES, M.D., Instructor in the Clinical Laboratory.

CALVIN G. PAGE, M.D., Assistant in Bacteriology.

C. MORTON SMITH, M.D., Assistant in Syphilis.

CHARLES J. WHITE, M.D., Instructor in Dermatology.

FRANKLIN W. WHITE, M.D., Assistant in the Theory and Practice of Physic.

OTIS F. BLACK, A.M., Assistant in Biological Chemistry.

ERNEST A. CODMAN, M.D., Assistant in Surgery.

FRANCIS P. DENNY, M.D., Assistant in Clinical Medicine.

WILLIAM P. GRAVES, M.D., Assistant in Gynaecology.

WILLIAM H. ROBEY, JR., M.D., Assistant in Clinical Medicine.

GEORGE S. C. BADGER, M.D., Assistant in the Theory and Practice of Physic.

EDMUND W. CLAP, M.D., Assistant in Ophthalmology.

ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

DANIEL F. JONES, M.D., Assistant in Surgery.

HARRIS P. MOSHER, M.D., Assistant in Anatomy, and in Laryngology.

FRANKLIN S. NEWELL, M.D., Instructor in Obstetrics and Gynae-cology.

HENRY J. PERRY, M.D., Assistant in Bacteriology.

WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.

ROBERT J. TERRY, M.D., Teaching Fellow in Histology.

ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.

ERNEST B. YOUNG, M.D., Assistant in Gynaecology.

CHARLES S. BUTLER, M.D., Assistant in Anatomy.

WALTER A. LECOMPTE, M.D., Assistant in Otology. HENRY O. MARCY, JR., M.D., Assistant in Anatomy.

FRED M. SPALDING, M.D., Assistant in Ophthalmology.

HOWARD T. SWAIN, M.D., Assistant in Obstetrics.

FREDERICK S. BURNS, M.D., Assistant in Dermatology.

LE ROI G. CRANDON, M.D., Assistant in Surgery.

LINCOLN DAVIS, M.D., Instructor in Anatomy.

EUGENE E. EVERETT, M.D., Assistant in Bacteriology.

MAYNARD LADD, M.D., Instructor in Pediatrics.

GEORGE B. MAGRATH, M.D., Assistant in Hygiene.

JOSEPH H. PRATT, M.D., Assistant in the Theory and Practice of Physic.

HENRY A. CHRISTIAN, M.D., Instructor in the Theory and Practice of Physic.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.

CHANNING C. SIMMONS, M.D., Assistant in Surgery.

WILDER TILESTON, M.D., Assistant in Clinical Medicine.

JAMES R. TORBERT, M.D., Assistant in Obstetrics.

GEORGE A. WATERMAN, M.D., Assistant in Neurology.

CHARLES H. DUNN, M.D., Assistant in Pediatrics.

EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

LUTHER D. SHEPARD, M.D., D.M.D., Instructor in Histology.

MAURICE V. TYRODE, M.D., Instructor in Pharmacology.

RICHARD G. WADSWORTH, M.D., Assistant in Anatomy.

HORACE BINNEY, M.D., Assistant in Anatomy.

DAVID CHEEVER, M.D., Assistant in Anatomy.

FREDERICK T. LORD, M.D., Assistant in Clinical Medicine.

ERNEST G. MARTIN, Ph.D., Instructor in Physiology.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

ERNEST E. TYZZER, M.D., Assistant in Pathology.

JOHN AUER, M.D., Instructor in Physiology.

LAWRENCE J. HENDERSON, M.D., Instructor in Biological Chemistry.

FRANCIS W. PALFREY, M.D., Assistant in Bacteriology.
SAMUEL ROBINSON, M.D., Assistant in Anatomy.
ZABDIEL B. ADAMS, M.D., Assistant in Pathology.
S. BURT WOLBACH, M.D., Instructor in Pathology.
FRANCIS H. McCRUDDEN, S.B., Assistant in Biological Chemistry.
ALEXANDER R. ROBERTSON, M.D., C.M., Assistant in Pathology.

AUSTIN TEACHING FELLOWS.

LANGDON FROTHINGHAM, M.D.V., in Bacteriology. FRANK L. RICHARDSON, M.D., in Surgery. PAUL A. LEWIS, M.D., in Comparative Pathology. FRED W. THYNG, Ph.D., in Histology and Embryology.

THE MEDICAL SCHOOL.

ADMISSION OF STUDENTS.

Candidates for admission to this School must present a degree in Arts, Literature, Philosophy, or Science from a recognized college or scientific school, with the exception of such persons, of suitable age and attainments, as may be admitted by a special vote of the Administrative Board in each case.*

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis sufficient to fit them to pursue the courses in Chemistry given at the Medical School; or, failing in this, to pass an examination in General Chemistry and Qualitative Analysis. Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry; but must make up the condition before the beginning of the second half-year.

The admission examination in General Chemistry (at which time also the note-books in Qualitative Analysis must be handed in) is held at the Medical School, Longwood Avenue, Boston, at 12 o'clock noon on the Thursday following the last Wednesday in June, and on the last Wednesday in September. The examination is conducted in writing. Specimen examination papers may be found in the Medical School Catalogues.

In and after September, 1907, a knowledge of elementary Organic Chemistry will be required for admission.

Applicants for admission to the Medical School who have studied three years in recognized colleges, technical, or scientific schools, in which courses in Human Anatomy, Physiology, Histology, and Biological Chemistry are a part of the instruction, may be admitted to advanced standing, provided they pass an examination in these subjects and possess the other requirements for admission.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations required in the full undergraduate course and by fulfilling all requirements for admission.

^{*} The exception above referred to applies only to men who, without such a degree, have acquired an equivalent education and training sufficient to enable them to profit by the instruction offered in the School.

These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examinations), and June. The next year will begin September 26, 1907.

DIVISION OF STUDENTS.

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register on Thursday, the first day of the academic year.

Beginning with the academic year 1906-07 students will be required

to devote themselves exclusively to the work of the School.*

Students who began their professional studies in other recognized Medical Schools may be admitted to advanced standing. All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission; but any student who has fulfilled the requirements of a Department of this School in another school of recognized standing may be excused from repeating such requirements provided the instruction which he has received is considered satisfactory by the head of the Department in this School.

Any student may obtain a certificate of his period of connection with the School.

^{*} The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

FOURTH YEAR ELECTIVES	Surgery Genito-Urinary Surgery Orthopedies Surgical Pathology Obstetrics Gynaecology Dermatology and Syphilis Neurology and Psychiatry Ophthalmology Orology Laryngology
FOURTH YEA	Anatomy Comparative Anatomy Embryology Histology Physiology Comparative Physiology Biochemistry Bacteriology Pathology Neuropathology Hygiene Clinical Medicine Theory and Practice Clinical Pathology Pediatrics Clinical Surgical Pathology
Типир Ував	*Materia Medica and Therapeutics Therapeutics Clinical Medicine Surgery (written 2 hrs., practical 1 hr., Surgery (written 1 hr., practical 1 hr.) Chinical Surgery (written 1 hr., practical 1 hr.) Syphilis Neurology 1 Psychiatry 1 Rychiatry 1 Rychiatry 1 Laryngology 1 Cenito-Urinary Surgery Legal Medicine Municipal Sanitation
SECOND YEAR	*Bucteriology 3 Ilygiene 1 Maleria Medica and Therapeutics Theory and Practice Clinical Medicine Surgery
Finst Year	*Anabomy 3 *Histology and 3 Embry clogy 3 Biochemistry 3

Nore.—Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates a ralue of 125 hours, are presented in the fourth year, electives must be chosen aggregating 1000 hours; each elective or half course has * Examination in February.

METHODS OF INSTRUCTION.

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE. — The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE TABULAR VIEWS.

B.C.H. = Boston City Hospital.

B.D. = Boston Dispensary.

B.I.H. = Boston Insane Hospital (Pierce and Austin Farms).

B.L.H. = Boston Lying-in Hospital.

Ch.H. = Children's Hospital.

E. and E.I. = Massachusetts Charitable Eye and Ear Infirmary.

H.M.S. = Harvard Medical School,

I.H. = Infants' Hospital.

L.I.H. = Long Island Hospital.

McL.H. = McLean Hospital.

M.G.H. = Massachusetts General Hospital.

S.D.B.C.H. = South Department, Boston City Hospital.

S.H. = Samaritan Hospital.

S.O.P.D. = Surgical Out-Patient Department.

Anatomy.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

JOHN WARREN, M.D., Demonstrator of Anatomy.

LINCOLN DAVIS, M.D., Instructor in Anatomy.

ELISHA FLAGG, M.D., Assistant in Anatomy.

HARRIS P. MOSHER, M.D., Assistant in Anatomy.

Charles S. Butler, M.D., Assistant in Anatomy.

Henry O. Marcy, Jr., M.D., Assistant in Anatomy.

RICHARD G. WADSWORTH, M.D., Assistant in Anatomy.

Horace Binney, M.D., Assistant in Anatomy.

DAVID CHEEVER, M.D., Assistant in Anatomy.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

Samuel Robinson, M.D., Assistant in Anatomy.

First year. — The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the

Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Text-books.—Cunningham. Gray. Quain. Morris. Gerrish. Woolsey, Applied Anatomy.

Collateral Reading. — Dwight, Frozen Sections of a Child. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Testut. Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Tillaux, Anatomie topographique. Humphry, Human Skeleton.

FIRST YEAR.

October.

Lectures. Professor Dwight. Seven hours weekly. 28
Demonstrations and study of bones and joints. Three hours daily. 60

November and December.

Lectures. Professor Dwight. Three hours a week. 24

Demonstrations. Dr. Warren. Four times a week to sections of the class. 32

Practical anatomy with demonstrations. Three hours a day five times.

Practical anatomy with demonstrations. Three hours a day, five times
a week.

January.

Lectures and demonstrations. Professor Dwight. Daily. 24

Demonstrations. Dr. Warren. Four times a week to sections of the class. 16

Practical anatomy with recitations. Three hours a day, five times a week.

60

Demonstrations and study of the brain and organs of sense. Three hours a day, five times a week.

Comparative Anatomy.

Charles S. Minot, S.D., LL.D., D.Sc., James Stillman Professor of Comparative Anatomy.

FREDERIC T. LEWIS, M.D., Assistant Professor of Embryology.

JOHN L. BREMER, M.D., Demonstrator of Histology.

ROBERT J. TERRY, M.D., Teaching Fellow in Histology.

LUTHER D. SHEPARD, M.D., D.M.D., Instructor in Histology.

Fred W. Thyng, Ph.D., Austin Teaching Fellow in Histology and Embryology.

LABORATORY.

The laboratory comprises the whole southeast wing of the new Morgan Anatomical Building. There are fifteen unit rooms for class work, each of which measures twenty-three by thirty feet, is well lighted, and will be thoroughly equipped as needed. Each unit room is designed for twenty-four elementary or twelve advanced students. There are separate rooms for the various officers, store rooms, collection room, animal room, etc. There is a large library in which complete files of the most important anatomical and morphological journals will be placed, together with many standard works of reference, and in an adjoining room a collection of about seven thousand pamphlets. A card catalogue and a classified bibliography are maintained which give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in comparative anatomy in the broadest sense, including histology and embryology. The former Department of Histology and Embryology has been merged with the new Department of Comparative Anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises over eleven hundred series of sections of carefully selected typical vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection also includes fifty-one series of sections from human embryos, several of which are of exceptional value, among them being one of the very youngest stages of man yet known.

Text-books.—Böhm and von Davidoff, A Text-Book of Histology. Minot, Text-book of Embryology.

Collateral Reading.—Quain, Anatomy. Lee, Microtomist's Vademecum. Kölliker, Gewebelehre. Minot, Human Embryology. Van Gehuchten, Système nerveux.

REGULAR COURSES.

First year. — Histology and Embryology are taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December. Every student is recommended to purchase a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term. Each student is charged a laboratory fee of three dollars.

FIRST YEAR.

October, November, December.

Lectures. Professor Minot, Dr. Bremer, Dr. Lewis. One half-hour five times a week.

Laboratory work. Three and one-half hours five times a week. 210 24

Quiz. Two hours once a week.

GRADUATE COURSES.

- I. Comparative Anatomy. The fourth-year electives are open to graduates. These are three half-courses, mornings or afternoons, December-January; February-March; April-May.
- II. Embryology. Two half-courses, afternoons, February-March; April-May.
 - III. Histology. Half-course, afternoons, April-May.
- IV. Professor Minor with Dr. Lewis will give a course of thirty-two exercises on Elementary Human Embryology for practitioners. course can be extended by a supplementary course of the same length. Fee, \$25.

Graduates taking these courses will be allowed the privilege of the Histological Laboratory. There will be an additional charge of \$5 for reagents and material.

V. Professor Minot with Drs. Bremer, Lewis, and Shepard will give a course intended for persons who wish to make a special study of Vertebrate or Human Embryology. This course is open to registered students of the Graduate Department of the Faculty of Arts and Sciences, and will be offered hereafter also as a special course to graduate students of the Medical School.

This course will extend through the entire year, but in two parts of one term each. The resources of the Embryological Laboratory in apparatus and material render it possible to offer unusually favorable opportunities for both general study and special research. The course is arranged for those who, as morphologists, anatomists, and practitioners, wish to give the principal part of their time for one or more school terms to the subject. It will cover the whole field of Embryology, including the genital products, the theories of heredity and sex, the formation of the germ-layers, differentiation of the organs, the history of the placenta and the general morphology of Vertebrates or of Man. Most of the work will be done by the student in the laboratory, but there will also be formal lectures. Students taking this course will be expected to devote to it not less than eighteen hours a week.

Fee, for one term, \$75. Two terms, \$125.

The above courses will be limited to twelve students in each course.

INVESTIGATION.

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology.

Walter B. Cannon, M.D., George Higginson Professor of Physiology. Ernest G. Martin, Ph.D., Instructor in Physiology. John Ader, M.D., Instructor in Physiology.

First Year. — The method of teaching Physiology consists in placing before the student the classical experiments of the science grouped in the most instructive sequence. The student himself performs as many of these as his own skill and the length of the course permit. What he does he is required to do well. The experiments selected are those which best illustrate the several groups or chapters of which physiology is composed. Preference, where possible, is given to observations used in clinical medicine. The observations which he cannot himself make the student reads with an understanding grounded on his own practical experience. The facts thus gained are discussed in conferences, written tests, formal lectures, and recitations.

In the laboratory the student works about one hundred and seventy-four hours. Each student is required to preserve in a laboratory book the graphic records obtained in his experiments, together with a brief account of his own observations. These records are examined weekly. The character of the laboratory instruction may be seen from the questions asked in the practical examination, page 93.

The conferences, about fifty informal half-hour exercises, are devoted to questions and explanations concerning the experimental work; they are, in fact, a combination of recitation and lecture.

The written tests are fifteen-minute examinations held daily except Mondays and Saturdays and one-hour examinations held Mondays during fifteen weeks. The following are some of the questions: State experiments to show where stimulation begins on closure of the galvanic current. What is the reaction of degeneration? Mark on the intraventricular pressure curve the moment of opening and closure of the mitral and aortic valves. Give a brief account of the digestion of fat. Give evidence to show that afferent impulses are transmitted by the

posterior roots of spinal nerves. Prove the existence of "hot and cold spots" on the skin. Cite experiments to show that the crystalline lens changes its shape in accommodation.

Approximately ninety formal lectures are held. These are supplemented by the reading and discussion of student theses.

One recitation is given weekly during fifteen weeks.

Twenty-four special demonstrations are given. The motor areas of the cortex of the brain, and the action of the chorda tympani nerve on the secretion of saliva are examples of the subjects chosen for demonstration.

Each student is required to write a physiological thesis, the material for which must be taken directly from the report of the original investigations. In addition each student is required to prepare a bibliography of a subject in physiology. About forty-five of the theses are selected for discussion by the class and staff. The subjects chosen are as a rule such as will supplement the instruction given in other ways. The discussions are held about five times a week from the sixth to the fifteenth week inclusive. The discussion is opened by hree students, each of whom has prepared himself upon some of the original investigations included in the theses, and is continued by the members of the class and of the staff. Among the theses discussed in the last collegiate year were: The excretion of urea; Internal secretion of the pancreas; Oedema; Regeneration of blood after hemorrhage; Artificial parthenogenesis; and Aphasia.

Text-books. — Text-book of Physiology, edited by E. A. Schäfer. Foster, Text-book of Physiology. American Text-book of Physiology. Howell, Text-book of Physiology. Waller, Human Physiology. Hermann, Lehrbuch der Physiologie. Porter, Introduction to Physiology.

FIRST YEAR (Second half).

Troubbot Citition, that District the	
Daily, except Saturday.	174
Conferences (52). Professor Cannon.	26
Written tests (76). Fifteen minutes daily, except Monday and	Satur-
day.	25
Written tests (15). One hour Mondays.	15
Lectures (86). Professor Cannon and Dr. Martin.	43
Special demonstrations (23). Professor Cannon and Drs. Mar.	rin and
AUER.	15
Recitations (15). Professor Cannon and Dr. Martin. Sati	irdays.
First to fifteenth week, inclusive.	15
Discussion of Theses (43).	33

Thesis. Written by each student from the original sources.

Reading of investigations. The reading of investigations and to

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

INVESTIGATION.

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology.

WILLIAM T. PORTER, M.D., Professor of Comparative Physiology.

GRADUATE COURSES.

- I. Physiological Research. Students qualified for research will pursue their investigations under the immediate direction of Professor W. T. PORTER.
- II. Comparative Physiology of Muscle. Professor Porter. Three hours weekly during February and March.
- III. Physiological Conference. Professor Porter. Demonstrations with informal discussions of selected problems in physiology. Mondays, 5 to 6 p.m., November, December, and January.

Biological Chemistry.

CARL L. ALSBERG, M.D., Instructor in Biological Chemistry.

LAWRENCE J. HENDERSON, M.D., Instructor in Biological Chemistry.

OTIS F. BLACK, A.B., Assistant in Biological Chemistry.

FRANCIS H. McCrudden, S.B., Assistant in Biological Chemistry.

FIRST YEAR

Biochemistry 1.—The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, by Dr. Henderson; and of the general principles and more important facts of Chemical Physiology and Pathology, by Dr. Alsberg.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Chemistry 15, offered by the Division of Chemistry of the Faculty of Arts and Sciences, in some respects a parallel course, or its equivalent, together with a somewhat extended acquaintance with organic chemistry, may be accepted in place of a part of the work of this course, provided that the time be spent in more advanced work in Biological Chemistry.

FIRST YEAR.

Biochemistry 1.—General Biological Chemistry. Lectures, Monday, Tuesday, Wednesday, Thursday, Friday, at 2; and laboratory, Monday, Tuesday, Wednesday, Thursday, Friday, 3-5.30, during the second half-year. Drs. Alsberg and Henderson, and Messrs. Black and McCrudden.

GRADUATE COURSES.

Biochemistry 2.—Metabolism. Lectures, five times a week during November and December. Dr. Alsberg.

This course is designed to acquaint the student with the present knowledge and problems of the metabolism of man and lower animals, both normal and pathological.

Biochemistry 3.— The Technique of Metabolism Investigations. Laboratory practice. Dr. Alsberg and Mr. McCrudden.

This course is designed to give the student a practical knowledge of the quantitative methods useful in conducting metabolism researches.

Biochemistry 4.— The Applications of Physical Chemistry to Biology. Lectures, five times a week during January. Dr. Henderson.

This course is designed to acquaint the student with the recent applications of physico-chemical theories and methods to Biology and medical science. The subjects to be discussed will include the theory of solution, the concentration law, catalysis, ionization, the theory of colloids, and the physico-chemical organization of the cell. The lectures will be supplemented by extended reading, and opportunity for practice in physico-chemical methods will be offered. In preparation for this course an elementary acquaintance with Physical Chemistry, such as may be obtained from Chemistry 8, offered by the Division of Chemistry of the Faculty of Arts and Sciences, is desirable.

Bacteriology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.
CALVIN G. PAGE, M.D., Assistant in Bacteriology.
HENRY J. PERRY, M.D., Assistant in Bacteriology.
ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.
EUGENE E. EVERETT, M.D., Assistant in Bacteriology.
FRANCIS W. PALFREY, M.D., Assistant in Bacteriology.

 ${\bf Langdon\ Frothingham, M.D.V.}, Austin\ Teaching\ Fellowin\ Bacteriology.$

Second year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods

of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Text-books. — Muir and Ritchie. Abbott. Park. Collateral Reading. — Sternberg. Heim. Migula.

SECOND YEAR.

Lectures. Professor Ernst. Daily, except Saturdays, during October and November. 40

Laboratory work. Professor Ernst, and Drs. Page, Perry, Worthington, Everett, Palfrey, and Frothingham. Two to three hours daily during October and November.

Pathology.

WILLIAM T. COUNCILMAN, M.D., Shattuck Professor of Pathological Anatomy.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

ELMER E. SOUTHARD, M.D., Assistant Professor of Neuropathology.

James H. Wright, M.D., S.D., Instructor in Pathology.

S. Burt Wolbach, M.D., Instructor in Pathology.

Ernest E. Tyzzer, M.D., Assistant in Pathology.

Zabdiel B. Adams, M.D., Assistant in Pathology.

Alexander R. Robertson, M.D., C.M., Assistant in Pathology.

Second year.—The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. Lectures and laboratory talks are given daily.

In the forenoons of the second and third weeks of December, Professor T. Smith gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are : -

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.)

 Text-books. Ziegler, General and Special Pathology. Stengel, A

 Text-book of Pathology. Mallory and Wright, Pathological Technique.

 Collateral Reading. Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie,
 Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, The Animal Parasites of Man.

SECOND YEAR.

Lectures. Professor Councilman. Daily for fourteen weeks, October, November, December (first week only), and January. 84

Lectures. Professor T. Smith. One hour daily, second and third weeks of December. 12

Laboratory work. Professor Councilman, and Drs. Wolbach, Robertson, and Adams. Three hours daily during the forenoons of October, November, December (first week only), and January. 252

Demonstrations and laboratory work. Professor T. Smith. Two hours daily, second and third weeks of December. 24

Neuropathology. Asst. Professor Southard. Afternoons in December. 45 Surgical pathology. Asst. Professor Nichols. Afternoons in January. 60

Comparative Pathology.

Theobald Smith, M.D., George Fabyan Professor of Comparative Pathology.

Paul A. Lewis, M.D., Austin Teaching Fellow in Comparative Pathology.

Second year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth year. — A course consisting of lectures and demonstrations on the comparative etiology of infectious diseases is given during the year as a part of the fourth-year elective in Clinical Medicine. In this course much time is devoted to a consideration of the general principles underlying infection and immunity, and their application to diagnosis, prevention.

and therapy (vaccines, antitoxins, agglutinins, etc.). The public-health problems arising from the interrelation of human and animal diseases are also discussed.

A few graduate students qualified to carry on investigations may be accommodated at the laboratory at Forest Hills from October to June.

SECOND YEAR.

Lectures. Professor T. Smith. (H.M.S.) One hour daily, second and third weeks of December.

Demonstrations and laboratory work. Professor T. Smith, and Drs. Wolbach, Robertson, and Lewis. Two hours daily, second and third weeks of December.

Hygiene.

CHARLES HARRINGTON, M.D., Professor of Hygiene. GEORGE B. MAGRATH, M.D., Assistant in Hygiene.

Second year. — The instruction consists of lectures and demonstrations. Text-book. — Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Abbott, Hygiene of Transmissible Diseases.

SECOND YEAR.

Lectures and demonstrations. Professor Harrington. Three times a week, second half-year.

Materia Medica and Therapeutics.

Franz Pfaff, M.D., Professor of Pharmacology and Therapeutics.

MAURICE V. TYRODE, M.D., Instructor in Pharmacology.

—————, M.D., Assistant in Materia Medica.

Second and Third years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice, and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological actions of drugs, and their practical value as remedies.

Text-book. - A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR.

Pharmacology lectures. Professor Pfaff. Twice a week, February to May inclusive. 32

Materia Medica lectures. Dr. Tyrode. Once a week, February to May inclusive.

Voluntary laboratory work. Dr. Tyrode. Two hours once a week during April and May.

THIRD YEAR.

Lectures on Therapeutics. Professor Pfaff. Once a week, first half-year.

The Theory and Practice of Physic.

REGINALD H. Fitz, M.D., Hersey Professor of the Theory and Practice of Physic.

ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.

ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic.

HENRY F. HEWES, M.D., Instructor in the Clinical Laboratory.

Henry A. Christian, M.D., Instructor in the Theory and Practice of Physic.

ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.

Franklin W. White, M.D., Assistant in the Theory and Practice of Physic.

George S. C. Badger, M.D., Assistant in the Theory and Practice of Physic.

JOSEPH H. PRATT, M.D., Assistant in the Theory and Practice of Physic.

Second and Third years. — Lectures. Lectures on selected topics are given at the Medical School.

Clinical Exercises. — Clinical exercises in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Ward Visits. — Students in sections will visit patients at stated intervals in the wards of the Massachusetts General Hospital.

Section Teaching. — Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory of Clinical Pathology.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Text-books. — Osler, Practice of Medicine. Tyson, Practice of Medicine. Von Mering, Lehrbuch der Inneren Medizin. Sahli, Diagnostic Methods.

Collateral Reading. — Nothnagel, Encyclopedia of Practical Medicine. Allbutt, System of Medicine. Eulenberg, Lehrbuch der klinischen Untersuchungsmethoden. Kolle und Weintrand, Die Deutsche Klinik. Krehl, Principles of Clinical Pathology. Eulenburg, Real-Encyclopädie der gesammten Heilkunde. Gould, Medical Dictionary.

SECOND YEAR.

Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a	week,
second half-year.	32
Clinical lectures. Professor Fitz. (M.G.H.) Once a week, second	l half-
year.	16
Clinical lectures. Dr. Cutler. (M.G.H.) Twice a week, second	half-
year.	32
Exercises in sections. Drs. Stone, Joslin, White, and Badger.	Twice
a week, second half-year, for each student.	32
Laboratory exercises. Five times a week, second half-year.	80

week, first half-year.				32
Clinical lectures. Professor Fitz.	(M.G.H.)			
Twice a week, first half-year.				32
Once a week, second half-year.				16
Clinical lectures. Dr. Cutler.	(M.G.H.)	Once a	week, first	half-
near.				16

year.

Ward Visits. Dr. Cutler. (M.G.H.) During the year.

Exercises in sections. Drs. Stone, Joslin, White, and Badger.

half-year.

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Clinical Medicine.

FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical Medicine.

GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

HENRY JACKSON, M.D., Instructor in Clinical Medicine.

RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.

JOHN W. BARTOL, M.D., Assistant in Clinical Medicine.

James M. Jackson, M.D., Assistant in Clinical Medicine.

FRANCIS P. DENNY, M.D., Assistant in Clinical Medicine.

WILLIAM H. ROBEY, Jr., M.D., Assistant in Clinical Medicine.

WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.

WILDER TILESTON, M.D., Assistant in Clinical Medicine.

EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

FREDERICK T. LORD, M.D., Assistant in Clinical Medicine.

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second year.—The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week.

Clinical instruction for the entire class, five times a week, in diagnostic methods, diagnosis, and treatment.

Third year.— Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections in connection with the Department of Theory and Practice. Each student attends forty-eight exercises during the year.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Simon, Clinical Diagnosis. Cabot, Physical Diagnosis. Forchheimer, Prophylaxis and Treatment of Internal Disease.

Collateral Reading. — Allbutt, System of Medicine. Twentieth Century Practice of Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Hare, Practical Diagnosis. Butler, Diagnostics of Internal Medicine. Le Fevre, Physical Diagnosis. Sahli, Diagnostic Methods.

SECOND YEAR.

- Clinics. Professor Shattuck and Dr. Vickery (M.G.H.) and Assistant Professor Sears and Dr. H. Jackson (B.C.H.). Five times a week, second half-year. 80
- Physical Diagnosis. Drs. Cabot, J. M. Jackson, and Lord (M.G.H.), Drs. Robey and Locke (B.C.H.), and Dr. Denny (B.D.). Twoexercises a week, second half-year, for each student. 32

THIRD YEAR.

Clinics. Professor Shattuck. (M.G.H.) Twice a week, first half-year; once a week, second half-year. 48 Assistant Professor Sears. (B.C.H.) Once a week. 32 Dr. H. Jackson. (B.C.H.) Once a week, first half-year. 16 Dr. Bartol. (B.C.H.) Twice a week, second half-year.

Pediatrics.

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- THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics. JOHN H. McCollom, M.D., Assistant Professor of Contagious Diseases. JOHN L. MORSE, M.D., Assistant Professor of Pediatrics. MAYNARD LADD, M.D., Instructor in Pediatrics,
- George A. Craigin, M.D., Clinical Instructor in Pediatrics. CHARLES H. DUNN, M.D., Assistant in Pediatrics.

Third Year. - Lectures on selected topics preparatory for the clinical teaching are given early in the year. Clinical lectures are given from November to April inclusive at the Children's Hospital and at North Grove Street; the students are required to take an active part in the examination and discussion of the cases. A certain number of recitations on subjects selected as best taught in this way are held in the course of the year, and a large amount of case teaching occurs in the latter part of the year. Sectional teaching at the bedside is given from October to May inclusive, and comprises a large proportion of the year's instruction. During the first half-year the class in sections receives instruction three times a week in the contagious wards of the Boston City Hospital, where each student is shown and examines cases of diphtheria, scarlet fever, and measles. Each student is taught the technique of intubation, and has an opportunity to see intubation performed. A written report of the cases seen is required. In all the clinical and sectional teaching especial attention is paid to clinical therapeutics.

Text-book. - Rotch, Pediatrics.

Collateral Reading. - Keating, Cyclopaedia of the Diseases of Children. Northrup, American Edition of The Diseases of Children, by Ashby

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and Wright. Jacobi, Therapeutics of Infancy and Childhood. Holt, Diseases of Infancy and Childhood. Sachs, The Nervous Diseases of Children.

THIRD YEAR. Lectures. Professor Rotch. (II.M.S.) Once a week, October 4 to

December 20; twice a week, January 31 to February 26; once a
week, March 5 to April 2.
Dr. Ladd. (H.M.S.) Once a week, January 3 to January 24. 4
Clinical lectures. Professor Rotch. (Ch.H.) Once a week, October 5
to February 8.
Assistant Professor Morse. (North Grove St.) Once a week, Feb-
ruary 15 to March 29.
Recitations and Case Teaching. Dr. Morse. Once a week, March 4 to
April 1; twice a week, April 8 to May 28.
Section Teaching.
Assistant Professor McCollom. (S.D.B.C.H.) Three times a week,
first half-year.
Assistant Professor Morse. (Ch.H. and I.H.) 41
Dr. Craigin. (Ch.H.)
Dr. Ladd. (Ch.H. and I.H.)
Dr. Dunn. (Ch.H and I.H.)

Surgery.

The Division of Surgery is composed of the departments of surgery, clinical surgery, orthopedic surgery, and surgical pathology.

J. Collins Warren, M.D., LL.D., Moseley Professor of Surgery.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.

MAURICE H. RICHARDSON, M.D., Professor of Clinical Surgery.

HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

James G. Mumford, M.D., Instructor in Surgery.

Each student receives 29 hours of section teaching.

John B. Blake, M.D., Instructor in Surgery.

Howard A. Lothrop, M.D., Instructor in Surgery.

Charles A. Porter, M.D., Instructor in Surgery.

ROBERT W. LOVETT, M.D., Instructor in Orthopedics.

ELLIOTT G. BRACKETT, M.D., Instructor in Orthopedics.

PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery.

JOEL E. GOLDTHWAIT, M.D., Instructor in Orthopedics.

JOHN DANE, M.D., Instructor in Orthopedics.

ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

GEORGE W. GAY, M.D., Lecturer on Surgery.

SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

George H. Monks, M.D., Lecturer on Surgery.

FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery.

Francis B. Harrington, M.D., Lecturer on Surgery.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

Franklin G. Balch, M.D., Assistant in Surgery.

FRED B. LUND, M.D., Assistant in Surgery.

GEORGE W. W. BREWSTER, M.D., Assistant in Surgery.

James S. Stone, M.D., Assistant in Surgery.

Ernest A. Codman, M.D., Assistant in Surgery.

Daniel F. Jones, M.D., Assistant in Surgery.

L. R. G. CRANDON, M.D., Assistant in Surgery.

CHANNING C. SIMMONS, M.D., Assistant in Surgery.

FRANK L. RICHARDSON, M.D., Austin Teaching Fellow in Surgery.

Instruction is given by systematic lectures, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third years. - A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures. demonstrations and recitations. In the first week the systematic lectures are given on surgical technic; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. During the first half of the third year the surgical anatomy of the various subjects in regional surgery is demonstrated by Professor Richardson. As early as may be in the second half of the second year, the course in surgical technic is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the

preparation and application of surgical dressings and materials by the students.

After the course in surgical technic the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. In the month of February all the students will be assigned to serve one month during the year beginning April 1, 1907, at one or other of these hospitals. During the month of required service as surgical dresser the student will receive instruction in anesthesia. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in orthopedic surgery is given in the first half of the year and consists of lectures at the Medical School and of clinical exercises at the Children's Hospital.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Books recommended. — International Text-book of Surgery. Warren, Surgical Pathology. American Text-book of Surgery (edition of 1903). Park's Surgery by American Authors. Cheever, Lectures on Surgery. Dennis, System of Surgery. König, Lehrbuch der Speciellen Chirurgie. Bryant, Operative Surgery. Jacobson (and Steward), Operations of Surgery. Brewer, Text-book of Surgery. DaCosta, Modern Surgery. Albert, Surgical Diagnosis (translated by Frank). Scudder, Treatment of Fractures. Stimson, Fractures and Dislocations. Marchand, Wundheilung. Gould, Elements of Surgical Diagnosis. Wharton, Minor Surgery and Bandaging. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopädische Chirurgie. Keyes, Surgical Diseases of the Genito-Urinary Organs. Morton, Genito-Urinary Diseases and Syphilis. Mumford, Clinical Talks on Minor Surgery. Burrell and Blake, Case Teaching in Surgery.

SECOND YEAR.

Laboratory course in Surgical Pathology. Assistant Professor Nichols.

(H.M.S.) Twenty three-hour exercises during January. (See Pathology.)

THE MEDICAL SCHOOL.
Clinical lectures in connection with the above course. Assistant Professor
Nichols. (B.C.H.) Twelve exercises during January. 12
Laboratory course in Surgical Technic. Dr. Lothrop. Six lectures to
the entire class.
Twelve two-hour exercises for each student during second half of second
year. 24
Systematic lectures, demonstrations, and recitations. Professors Warren
and Burrell. (H.M.S.) Four times a week 128
Clinical demonstrations in connection with the above lectures. Professor
RICHARDSON (M.G.H.), and Drs. J. B. BLAKE and LOTHROP (B.C.H.).
Four times a week.
THIRD YEAR.
Castomatic lectures demonstrations and resitations. Ducfessors W

Systematic lectures, demonstrations, and recitations. Professors Warren and Burrell. (H.M.S.) Three times a week, first half-year. 48 Regional Surgery. Professor M. H. Richardson. (H.M.S.) A series of demonstrations, as may be found necessary.

Clinical demonstrations in connection with above lectures. Professors Warren (M.G.H.) and Burrell (B.C.H.). Twice a week, first half-year.

Clinical lectures. Professor M. H. Richardson. (M.G.H.) Once a week, second half-year.

Professor Burrell, and Drs. Gay and Monks. (B.C.H.) Twice a week, second half-year. 32

Clinical exercises in surgical wards. Drs. Harrington, Lothrop, Codman, Lund, and Crandon. Twice a week for eight weeks, first halfyear.

Lectures and demonstrations. Orthopedic surgery. Professor Bradford.

(H.M.S. and Ch. H.) Once a week, first half-year. 16

Lectures. Genito-Urinary Surgery. Dr. Thorndike. (H.M.S.) Once a week for eight exercises in October and November. 8

Section teaching at the Hospitals. One hour a day for six days.

Case Teaching. Dr. J. B. Blake. (H.M.S.) Once a week, beginning March 1.

Obstetrics and Gynaecology.

WILLIAM L. RICHARDSON, M.D., Professor of Obstetrics.

Charles M. Green, M.D., Associate Professor of Obstetrics and Clinical Gynaecology.

Franklin S. Newell, M.D., Instructor in Obstetrics and Gynaecology.

Malcolm Storer, M.D., Assistant in Gynaecology.

WILLIAM P. GRAVES, M.D., Assistant in Gynaecology.

Ernest B. Young, M.D., Assistant in Gynaecology.

HOWARD T. SWAIN, M.D., Assistant in Obstetrics. LEO V. FRIEDMAN, M.D., Assistant in Obstetrics. James R. Torbert, M.D., Assistant in Obstetrics.

OBSTETRICS.

Third year. — Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, to receive clinical instruction on at least one of them, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Text-book. — J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Reynolds and Newell, Practical Midwifery. Hirst, A Text-book of Obstetrics. Lusk, The Science and Art of Midwifery. Jellett, Manual of Midwifery.

THIRD YEAR.

Lectures on the Theory and Practice of Obstetrics. Professor W. L. RICHARDSON. (H.M.S.) Twice a week. 64

Recitations. Dr. Newell. (H.M.S.) Once a week. 32

Conferences. Professor W. L. RICHARDSON, Professor Green, and Drs. Newell, Swain, Friedman, and Torbert. (H.M.S.) Once a

week.

Practical instruction in Clinical Obstetrics. Drs. Newell, Swain, Fried-

MAN, and TORBERT. Throughout the year, i.e., every student must receive instruction on one of the six cases of labor which he attends, and may call for instruction in the other five cases if he desires.

GYNAECOLOGY.

Third year. — Lectures, recitations, and clinical instruction are given at the Boston City Hospital and the Boston Dispensary. The large outpatient departments of these institutions are utilized to accustom the student to the methods of examination, to the perfecting of diagnosis, and to the simple forms of treatment.

Text-book. — Dudley, Principles and Practice of Gynaecology.

Collateral Reading.—Skene, Diseases of Women. Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women. Ashton, Practice of Gynaecology.

THIRD YEAR.

Lectures or recitations. Professor Green. (H.M.S). Twice a week, second half-year. 32

Clinical exercises. Dr. Storer (B.D.), Drs. Newell and Young (B.C.H.). In sections, nine times a week in February and March, then three times a week. Every student receives six hours of instruction.

Dermatology and Syphilis.

John T. Bowen, M.D., Assistant Professor of Dermatology.
Abner Post, M.D., Instructor in Syphilis.
Charles J. White, M.D., Instructor in Dermatology.
Harvey P. Towle, M.D., Assistant in Dermatology.
C. Morton Smith, M.D., Assistant in Syphilis.
Frederick S. Burns, M.D., Assistant in Dermatology.

DERMATOLOGY.

Third year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Collateral Reading.—Stelwagon. Duhring. Hyde. Robinson. Crocker. Kaposi. v. Ziemssen. Besnier. Van Harlingen. Jackson. Taylor.

THIRD YEAR.

Lectures, demonstrations, and recitations on diseases of the skin. Assistant
Professor Bowen. (H.M.S.) Once a week during October and
November.

Clinical Dermatology. Assistant Professor Bowen. (M.G.H.) Once a week.

Clinical exercises. Drs. Towle and Burns. (M.G.H.) In sections, twice a week, February and March.

S YPHILIS.

Third year. — Lectures and clinical instruction are given at the Bostor Dispensary.

THIRD YEAR.

Lectures. Dr. Post. (H.M.S.) Once a week, December and January. 8 Clinical lectures. Drs. Post and Smith. (B.D.) Once a week, April and May. 8

Clinical exercises. Drs. Post and Smith. (B.D.) In sections, twice a week, second half-year. Each student attends six two-hour exercises.

Neurology.

James J. Putnam, M.D., Professor of Diseases of the Nervous System. Edward W. Taylor, M.D., Instructor in Neurology.

PHILIP COOMES KNAPP, M.D., Clinical Instructor in Diseases of the Nervous Sustem.

George A. Waterman, M.D., Assistant in Neurology.

Second year. — Instruction is given during December on the pathology of the nervous system. The course is illustrated by lantern projections of histological preparations and by work in the laboratory.

Third year. — During the first half-year one lecture a week, and during the second half-year two lectures a week are given at the Massachusetts General Hospital. The lectures are illustrated by cases from the large and excellent out-patient service, and from the medical and surgical wards of the hospital. In addition, the students are given an opportunity to study cases outside the lecture hours, and to report on them.

Text-book.—Putnam and Waterman, Studies in Neurological Diagnosis.
Collateral Reading.—Gowers, Diseases of the Nervous System. Dana,
Text-book of Nervous Diseases. Herter, Manual of Diagnosis of Nervous
Diseases. Sachs, Nervous Diseases of Children. Mills, The Nervous
System and Its Diseases. Oppenheim, Diseases of the Nervous System
(English translation). Berkeley, Mental Diseases. Church and Petersen, Nervous and Mental Diseases. Jacob, Atlas of the Nervous System.

SECOND YEAR.

Pathology of the Nervous System. Assistant Professor Southard. (H.M.S.) Fifteen exercises during December. (See Pathology.) 45

THIRD YEAR.

Clinical exercises. Professor Putnam. (M.G.H.) Once a week, first half-year; twice a week, second half-year. 48

Psychiatry.

Edward Cowles, M.D., LL.D., Instructor in Mental Diseases.
George T. Tuttle, M.D., Clinical Instructor in Mental Diseases.
William Noyes, M.D., Clinical Instructor in Mental Diseases.

Third year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Boston Insane Hospital.

Text-books. — Kraepelin, Psychiatrie (English translation, Defendorf — Clinical Psychiatry). Clouston, Clinical Lectures on Mental Diseases. Folsom, Monograph in Pepper's System of Medicine. Berkley, Mental Diseases. Regis, Manual of Mental Medicine. Paton, Psychiatry.

Collateral Reading.—Krafft-Ebing, Text-book of Insanity. Church and Peterson, Nervous and Mental Diseases. Brower and Bannister, Insanity. James, Psychology. Tuke, Dictionary of Psychological Medicine. Baldwin, Dictionary of Philosophy and Psychology. Hall, Adolescence. Barr, Mental Defectives.

THIRD YEAR.

Lectures. Dr. Cowles. (H.M.S.) Once a week, second half-year. 16 Clinical exercises. Dr. Cowles. (B.I.H.) At stated intervals. 3-4

Ophthalmology.

Myles Standish, M.D., Assistant Professor of Ophthalmology.
Edwin E. Jack, M.D., Instructor in Ophthalmology.
Alexander Quackenboss, M.D., Instructor in Ophthalmology.
Henry H. Haskell, M.D., Assistant in Ophthalmology.
Edmund W. Clap, M.D., Assistant in Ophthalmology.
Fred M. Spalding, M.D., Assistant in Ophthalmology.

Third year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - DeSchweinitz. Fuchs. Swanzy. Jackson.

Collateral Reading. — Loring, On the Ophthalmoscope. Landolt, Refraction and Accommodation. Noyes. Norris and Oliver, System of Diseases of the Eye. Haab, Atlas of the External Diseases of the Eye.

THIRD YEAR.

Lectures. Assistant Professor Standish. (H.M.S.) Twice a week, in
October and November.

Clinical exercises. Drs. Jack, Quackenboss, Clap, Spalding, and
Haskell. (E. and E.I.) In sections, ten hours a week, first halfyear. Every student receives fourteen hours of instruction.

14

Otology.

CLARENCE J. BLAKE, M.D., Professor of Otology.
EUGENE A. CROCKETT, M.D., Instructor in Otology.
PHILIP HAMMOND, M.D., Instructor in Otology.
WALTER A. LECOMPTE, M.D., Assistant in Otology.
—, M.D., Assistant in Otology.

Third year. — Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. — Brühl and Politzer. Bacon.

Collateral Reading. — Politzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Blake and Reik.

THIRD YEAR.

Lectures. Professor Blake. (H.M.S.) Twice a week, February and March; once a week, April and May. 24

Clinical exercises. (E. and E.I.) In sections, two hours, three times a week, second half-year. Every student attends four or five exercises.

8-10

Laryngology and Rhinology.

ALGERNON COOLIDGE, Jr., M.D., Assistant Professor of Laryngology.

FREDERIC C. COBB, M.D., Instructor in Laryngology.

Joseph P. Clark, M.D., Assistant in Laryngology.

ROCKWELL A. COFFIN, M.D., Assistant in Laryngology.

Joseph L. Goodale, M.D., Assistant in Laryngology.

HARRIS P. Mosher, M.D., Assistant in Laryngology.

Third year. — Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has one lecture a week during the second half-year. For the practical work at the Massachusetts General Hospital and the Boston Dispensary, the class is divided into small sections.

THIRD YEAR.

Lectures. Assistant Professor Coolidge. (H.M.S.) Once a week, second half-year.

Clinical exercises. Assistant Professor Coolidge, and Drs. Clark, Goodale, Mosher (M.G.H.), and Cobb (B.D.). In sections, second half-year. Twelve exercises for each student.

Legal Medicine.

EZRA R. THAYER, LL.B., will deliver a voluntary course of not more than six lectures on the relation of the medical profession to the law and the courts, during February, on evenings to be announced later. These lectures will be open to students and to the profession.

Legal Medicine is no longer taught as a separate study; but the several departments will give instruction in the medico-legal aspects of their respective subjects.

Municipal Sanitation.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

THIRD YEAR. OPTIONAL COURSE.

Lectures. Dr. Durgin. (H.M.S.) Twice a week, February and March.

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year. The two half-courses elected for the first two or the last two months of each half-year must be formed on the same plan to avoid conflict.

Neuropathology, medicine, pediatrics, surgery, and obstetrics offer electives on the all-day plan.

Anatomy, histology, embryology, bacteriology, clinical surgical pathology, genito-urinary surgery, orthopedics, surgical pathology, gynaecology, dermatology, neurology and psychiatry, ophthalmology, otology, and laryngology offer electives on the half-day plan.

Physiology, comparative physiology, biochemistry, pathology, clinical pathology, and hygiene offer electives on both plans.

The several half-courses offered by any one department are not necessarily graded courses, but represent hours of clinical, technical, and research work.

Students who intend to become general practitioners are advised to elect the following group of subjects:—

Medicine .											٠	٠			3]	half-	courses.
Pediatrics															1	66	66
Surgery .															1	66	66
Obstetrics															1	6.6	66
Neurology and psychiatry, dermatology																	
and syph	ili	s,	or	g	yn	ae	со	lo	gу						1	66	46
Anatomy,	his	sto	lo	gy	, '	em	bı	ry	olo	gy	,	ph	ys	i-			
ology, bio	och	en	nis	tr	y,1	ba	cte	eri	ol	og	y, 1	ne	ar	0-			
patholog	у,	or	the	оре	edi	cs	, (r	hy	gi	en	е			1	66	66

Students interested in surgery are advised to elect the following group of subjects:—

Medicine					٠											2	half-	course	28
Surgery											۰		۰			2	6.6	6.6	
Genito-ur	rin	ar	y	su	rge	ery					۰		۰			1	6.6	66	
Anatomy							٠				٠					1	66	66	
Gynaecol	og	y.	or	cl	ini	ca	1 8	ur	gi	cal	p	atl	nol	log	у	1	6.6	4 6	
Orthoped	ic	s o	r	SILI	rei	ca	lτ	at	ho	olo	grv					1	6.6	66	

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned. Special arrangements will be made for students desirous of paying exclusive attention to other subjects than those listed, for example, pharmacology and comparative pathology.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Board of Administration, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before September 15.

The Faculty reserves the right to modify the selection of the courses chosen by any student.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

Anatomy. — Half-courses, afternoons, throughout the year.

Anatomy I..... October-November; December-January; February-March.

Anatomy II April-May.

Comparative Anatomy. — Half-courses, forenoons or afternoons.

- (1) Comparative Anatomy. Forenoons or afternoons.
 - I. December-January.
 - II. February-March.
 - III. April-May.
- (2) Embryology. Half-courses, afternoons, second half-year.
 - IV. February-March.
 - V. April-May.
- (3) Histology. Half-course, afternoons, second half-year. VI. April-May.

Physiology. — Half-courses, forenoons, afternoons, or all day throughout the year.

Comparative Physiology. — Half-courses, forenoons, afternoons, or all day, throughout the year.

Biological Chemistry (Biochemistry 20). — Half-courses, forenoons throughout the year; all day or afternoons, first half-year.

Bacteriology. — Half-courses, forenoons or afternoons, second halfyear.

Pathology. — (1) Pathology. Half-courses, forenoons or all day, second half-year.

(2) Neuropathology. Half-courses, all day, throughout the year.

Comparative Pathology. — No courses offered, but special arrangements can be made with the department.

Pharmacology. — No courses offered.

- Medicine. (1) Clinical Medicine. Half-courses, all day, throughout the year.
 - (2) Theory and Practice. Half-courses, all day, November to May inclusive.
 - (3) Clinical Pathology. Half-courses, forenoons or all day, first half-year.

Pediatrics. - Half-courses, all day, throughout the year.

Clinical Surgical Pathology. — Half-courses, forenoons, throughout the year.

- Surgery. (1) Surgery. Half-courses, all day, throughout the year.
 - (2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.
 - (3) Orthopedics. Half-courses, afternoons, throughout the year.
 - (4) Surgical Pathology. Half-courses, afternoons, throughout the year.

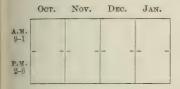
Obstetrics and Gynaecology: -

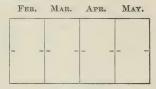
(1) Obstetrics. Half-courses, all day, throughout the year.

(2) Gynaecology.	* *	forenoons	,	
Dermatology and Syphilis.	6.6	66	"	6.6
Neurology and Psychiatry.	66	66	6.6	4.6
Ophthalmology.	46	" s	econd ha	ılf-year.
Otology.	66	" tl	nroughor	ut the year.
Laryngology.	66	" fi	rst half-	year.
Hygiene.	66	" a	fternoon	is, or all day,
			through	nout the year.

DIAGRAMS OF FOURTH-YEAR ELECTIVES

Half-courses. - All-day Plan.





Physiology.
Comparative Physiology.

Biochemistry.*

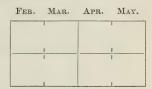
Pathology.**

Neuropathology.
Clinical Medicine.
Theory and Practice.
Clinical Pathology.*

Pediatrics.
Surgery.
Obstetrics.
Hygiene.

Half-courses .- Half-day Plan.

	Oct.	Nov.	DEC.	JAN.
A.M. 9-1				
1			1	
P.M. 2-6			,	
1	1		1	



Forenoons.

Comparative Anatomy.
Physiology.
Comparative Physiology.
Biochemistry.
Bacteriology.**
Pathology.**
Clinical Pathology.*
Clinical Surgical Pathology.
Genito-Urinary Surgery.
Gynaecology.
Dermatology and Syphilis.
Neurology and Psychiatry.
Ophthalmology.**
Otology.
Laryngology.*

Afternoons.

Anatomy.
Comparative Anatomy.
Histology.**
Embryology.**
Physiology.
Comparative Physiology.
Biochemistry.*
Bacteriology.**
Orthopedics.
Surgical Pathology.
Hygiene.

Hygiene.

^{* =} first half-year.

^{** =} second half-year.

Group of Courses Recommended for the General Practitioner.

	Ост.	Nov.	DEC.	JAN.		FEB.	MAR.	APR.	MAY.					
A.M. 9-1 P.M. 2-6	Medicine	Medicine	 Medicine 	Pediaatrics		Surgery	Obstetries	1 2						
	Medicine 3 half-courses. Pediatrics													
		ery etrics .					. 1 "							
		or gyr	aecolog	у	atry, derm		. 1 "		•					
	(2) £	ology,	bioche	mistry,	embryology bacteriolog; ics, or hyg	y, neuro)-							

Group of Courses Recommended to Men interested in Surgery.

FEB. MAR. APR. MAY.

66

66

OCT. NOV. DEC. JAN.

A.M. 9-1	icine	edicine	gery	gery		G.	U. St	ırgery	1	
P.M. 2-6	Medicine	Medi	Surg	Surgery			Anato	omy	2	
	Geni	cine . ery to-urina	ry surg	ery .	 			2 "	66	es.

(1) Gynaecology or clinical surgical pathology 1 "

(2) Orthopedics or surgical pathology 1 "

GENERAL PLAN OF INSTRUCTION

ANATOMY. Half-courses, afternoons, throughout the year.

(1) Anatomy I. October and November; December and January; February and March.

This is a dissecting course in which the three parts of the body are to be dissected. It will be under the direction of the demonstrator. Each student will be quizzed once a week and there will be a certain amount of supervision by the assistants.

- N. B. No one can take this course who has not passed his first-year anatomy.
 - (2) Anatomy II. April and May.

This is not to be considered a course for professional anatomists, but one suited to the practitioner. It will consist of topographical anatomy, the study of frozen sections, and of special parts of anatomy; in the selection of the latter every effort will be made to meet the wishes of those taking the course. For instance, some can give particular attention to the joints, others to the circulation, etc. Though there will be no systematic dissection the cadaver will be used for study and for special dissections. This elective will be under the immediate supervision of the professor of anatomy.

COMPARATIVE ANATOMY. Half-course, throughout the year.

- (1) Comparative Anatomy. Three half-courses. These courses may be taken either consecutively or separately. The general morphology of vertebrates and the anatomy of important types will be studied.
- (2) Embryology I. February and March. Elementary laboratory course, especially correlated with anatomy and pathology.
- (3) Embryology II. April and May. Proresearch work. Each student will be given a special piece of work to verify and extend some important recent investigation.
- (4) Histology. April and May. General laboratory course offering training in methods. Each student must select in advance one of the three following forms of this course:—
- (a) General Histology, intended specially as preparation for advanced work in anatomy and pathology.
 - (b) General structure and development of the nervous system.
 - (c) General structure and development of the urogenital system.

Physiology. Half-courses, forenoons, afternoons, or all day, throughout the year.

The elective work in physiology will be of two classes: -

- (A) Detailed study in any special subject in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.
- (B) Investigation. Students, properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Comparative Physiology. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor Porter. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. This course is open to qualified persons not students in the Medical School.

BIOCHEMISTRY (20). — Research in Biological Chemistry. Half-courses, forenoons, throughout year; all day or afternoons, first half-year.

A student may elect work in any field of biochemical research for which he is qualified by his previous training. For detailed information he is referred to the pamphlet of the Department of Biological Chemistry.

Bacteriology. Half-courses, forenoons, afternoons, or all day, second half-year.

One month electives will be of two kinds, including, (a) instruction in methods of diagnosis depending upon bacteriological procedures; and (b) instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

- (1) Pathology. Half-courses, forenoons or all day, second half-year. The work will consist of (a) training in the technical methods used in pathology; (b) attendance at postmortem examinations at the various hospitals, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.
- (2) Neuropathology. Half-courses, all day, throughout the year. The course is given at the Danvers Insane Hospital, and involves (a) attendance at the daily case-readings of the hospital staff, with analysis and observation of cases presented (one to three daily); (b) work in the wards upon selected cases; (c) laboratory work. Each student is assigned the tissues and protocol of a neuropathological case, the report of which will involve personal employment of the approved technical methods in neuropathology, as well as a variable amount of library work. When elected for more than a month, the course may involve work on a neuropathological problem. The course is intended as preparatory for neurological or psychiatrical work or as auxiliary to work on general medicine.

Hygiene. Half-courses, forenoons, afternoons, or all day, throughout the year.

The instruction will be suited to the qualifications of the individual student. It will consist in part of laboratory instruction and in part of special research. The regular course of laboratory instruction will comprise the analysis of air, soils, water and foods, and the investigation of disinfectants, etc.

MEDICINE. — I. Clinical Medicine. Half-courses, all day, throughout the year.

The morning will be devoted to clinical work in various out-patient departments and hospital wards, the afternoon to lectures on special subjects. There will be required also a report of a single case which shall serve as the subject of a clinical conference, and a thesis containing original work of some character, the length of which will vary according to the number of half-courses elected. Eight such courses are offered, and the student may elect as many as he chooses.

- (1) Clinical Instruction. This will be of two kinds:
- (a) Work as assistant in the out-patient department or hospital wards.
- (b) Attendance on special courses of advanced clinical medicine to be given simultaneously at each hospital, three days a week, between nine and ten, by instructors or assistants in medicine.

- (2) Didactic Teaching. This will be given in the afternoon on special topics in medicine. These lectures will supplement to a considerable extent the specialized work given in the mornings between nine and ten. Other exercises will be devoted to case teaching, to demonstrations in gross pathology, given jointly by members of the pathological and medical departments, and to practical therapeutics.
- (3) Original Thesis. Each student shall present before graduation an original thesis which will embody clinical, laboratory, statistical, or literary work. The subject of the thesis shall be approved, and the work done under the supervision of some member of the medical department selected by the student. The thesis shall be presented at a meeting of the class presided over by one of the younger members of the department selected by the professors. The member of the department under whose supervision the thesis of the afternoon has been prepared shall also be present.
- (4) Clinical Conference. Each student will report and discuss one case at a meeting of the class, as heretofore.
- II. Theory and Practice. The electives in medicine offered by the Department of Theory and Practice consist of
- (a) Half-courses involving attendance at the Massachusetts General Hospital throughout the day for one month from November to May inclusive. It will be limited to classes of four students but may be repeated when possible.
- (b) Research in the Laboratory of Clinical Pathology on the half-day or all-day plan, first half-year.

PEDIATRICS. Half-courses, all day, throughout the year.

The work will consist of clinical instruction of cases in the wards and out-patient departments of the Infants' Hospital, Children's Hospital and the Contagious wards of the South Department. Students will be assigned to the various wards and out-patient departments by the Professor of Pediatrics and will work under his supervision, and in so far as is practicable the work will be assigned in reference to their individual needs and wishes. The students may also attend the clinical lectures given by Dr. Rotch in the third year. The direction of the clinical work will be carried out by the other members of the department. One half of each section will work in the mornings in the out-patient department of the Infants' Hospital and the other half in the out-patient department. The whole section will spend two afternoons a week at the South Depart-

ment under Dr. McCollom, and two afternoons in the medical wards of the Children's Hospital under the supervision of an instructor. Two clinical exercises on diseases of the ear in infants will be given each month through the courtesy of Dr. Crockett. The remaining time will be spent on reading in connection with some subject assigned to each student, and on which a written report will be required.

CLINICAL SURGICAL PATHOLOGY. Half-courses, forenoons, throughout the year.

The course will consist of a study of clinical cases with especial reference to the pathology of the lesions present and the use of the microscope in immediate diagnosis. The work will be supplemented with conferences and demonstrations in the Warren Museum.

SURGERY: -

(1) Surgery. Half-courses, all day, throughout the year.

The instruction will consist of ward work, the examination of cases, the recording of histories, the establishing of diagnoses, the etherization of patients, the dressing of injuries, wounds, and fractures, the close observation of operations, seeing the progress of a surgical patient, and the end results of cases. The out-patient work will consist of the establishing of diagnoses, the treatment of cases under direction, and the recording of histories. This work will be carried out at the hospitals, in the wards and out-patient departments, and will occupy a part of each day, and will be from time to time directed and supervised by instructors.

The afternoons will be devoted to library, museum, and literary work, surgical pathology, case teaching, regional surgery, and operative surgery. Seminars and conferences will be held as occasion requires. The student will be required to account for his daily work.

Any student who wishes information or advice regarding his course in surgery in the fourth year may apply to Dr. H. L. Burrell, 22 Newbury St., on any day except Saturday or Sunday, between 2 and 3 p.m.

(2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(3) Orthopedic Surgery. Half-courses, afternoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of

the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(4) Surgical Pathology. Half-courses, afternoons, throughout the year.

Students will be received in the surgical laboratory for the investigation of special subjects in the pathology of surgical diseases. The choice of subjects to be investigated may be made by the students, or the director of the laboratory will suggest the lines of investigation to be pursued. A considerable amount of fresh pathological material from surgical operations is received, and will be demonstrated to students who elect the course. The amount of material is sufficiently large to provide for numerous lines of investigation.

OBSTETRICS AND GYNAECOLOGY: -

(1) Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the second half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

(2) Gynaecology. Half-courses, forenoons, throughout the year.

The course will be given in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, which affords ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be expected to study, and report on, pathological specimens removed by operation.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

Dermatology and Syphilis. Half-courses, forenoons, throughout the year.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique.

Neurology and Psychiatry. Half-courses, forenoons, throughout the year.

The instruction in neurology will be as follows: -

- (1) Recording histories and making examinations of patients presenting themselves at the out-patient department of the Massachusetts General and Boston City Hospitals.
- (2) Assisting in the treatment of such patients by electricity and otherwise.
- (3) Reading specified articles with reference to subjects coming up for investigation.
- (4) Making original investigations with regard to certain clinical points. For this purpose the patients presenting themselves at the out-patient department can be studied, and, to a limited degree, the patients in the medical and surgical wards of the hospital.

The instruction in psychiatry will be as follows:-

- (1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.
- (2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.
- (3) Clinical instruction at the Boston Insane Hospital one forenoon in each week, including clinical demonstrations, and the individual study of especially assigned cases, which will also be reported and discussed at the regular evening conferences.

This course in psychiatry is open to a limited number of students, and may be taken independently of that in neurology. Several exercises will be held in common by those electing psychiatry and neuropathology.

OPHTHALMOLOGY. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital.

OTOLOGY. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, nose, and nasopharynx in addition to thorough clinical instruction.

LARYNGOLOGY. Half-courses, forenoons, first half-year.

The course is held on alternate days at the Massachusetts General Hospital. One half of the morning will be given to work in the clinic, and the second half to systematic clinical instruction, operations, anatomy, pathology, and the literature of the subject.

EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The Mid-Year and June examinations are only for those who are members of the School at the time, and for those entitled to apply for the degree. The September examination is only for those who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows: -

First year.— Anatomy * (3 hrs.), Histology and Embryology * (3 hrs.), Physiology (3 hrs.), Biological Chemistry (3 hrs.).

^{*} The examinations in these subjects are held at the end of the first half-year.

Second year. — Bacteriology * (1 hr.), Pathology * (2 hrs. written, 1 hr. practical), Hygiene (1 hr.).

Third year. — Materia Medica and Therapeutics* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical, as follows: Surgery, 15 min.; Orthopedic Surgery, 15 min.; Surgical Technique, 15 min.; Surgical Pathology, 15 min., taken in second year), Clinical Surgery (1 hr. written, 1 hr. practical, as follows: Clinical Surgery, 45 min.; Genito-Urinary Surgery, 15 min.), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth year. — The nature of the examinations is determined by each department. The student's credit is based on his daily written record of work, on a practical or written examination at the end of each course, or on all combined.

In addition to the above examinations every student is required: —

To dissect the three parts of the body to the satisfaction of the demonstrator:

To receive practical instruction in anesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

To take charge of and report on six cases in Obstetrics, and to receive instruction on at least one of them;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES.

DEGREE OF DOCTOR OF MEDICINE.

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at

^{*} The examinations in these subjects are held at the end of the first half-year.

least four full years, of which one year must be spent at this School; must pass all required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine cum laude will be given to candidates who have obtained an average of eighty per cent., or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before May 1 of the year in which they intend to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of June.

A graduate of another medical school of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned; but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

DEGREE OF MASTER OF ARTS.

The degree of Master of Arts is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the fifteenth day of January.

FEES AND EXPENSES.

The fees are:—For matriculation, five dollars; for instruction, two hundred dollars for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars. During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; two dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge

for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, two dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique. In the fourth year a charge of three dollars is made for material used in the course in Operative Surgery. A deposit of two dollars with the Dean will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Payment of Fees.

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and fifty-three dollars; and all other students are required to pay, in the same manner, the sum of one hundred and twenty dollars. Fourth-year students electing Surgery are required to pay a charge of three dollars for material in Operative Surgery. The remainder of the tuition fee — eighty dollars each for all students — must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students

^{*} The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. No degree will be conferred till all dues to the School are discharged.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at various prices can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

CLINICAL ADVANTAGES.

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various Clinical Subjects those advantages which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital. — During the past year, more than five thousand patients were treated in the wards, and over thirty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, and Ophthalmology. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital. — During the past year, about nine thousand cases were treated in its wards, and twenty-two thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical

instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital. — More than six hundred patients were confined during the last year in the Hospital. In the out-patient department over sixteen hundred cases were attended by the hospital. Externes, who are appointed from the third and fourth year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — More than forty thousand patients were treated at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital. — The wards of the Hospital are devoted entirely to children under two years of age. About three thousand children of all ages are treated annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than seven hundred cases were treated in the wards and about seventy-six hundred in the outpatient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital. — During the past year two hundred and five patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, —pathological, chemical, and physiological, with psychological methods, —work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston Insane Hospital. — During the past year one thousand and eighty-seven patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facili-

ties for the special study of cases by students taking elective courses. Emergency cases are received; the whole number of patients admitted last year was four hundred and sixteen, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary. — Over thirty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor. — This Hospital is designed particularly for the treatment of chronic diseases. It has two hundred and fifty beds, with an average daily number of patients of about two hundred and thirty. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent. of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

Students are also permitted to visit the Free Hospital for Women and the Carney Hospital on application to the physicians on duty.

There are more than sixty appointments annually for Internes in the various hospitals, and nearly as many more for Assistants in the outpatient departments. Appointments for the Massachusetts General and Boston City Hospitals are for terms of one to two years (according to the service chosen); for the Boston Lying-in Hospital for six months; and for the Free Hospital for Women for nine months.

WARREN ANATOMICAL MUSEUM.

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor Emeritus from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. William Fire Whitney.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES.

Medical School students who are engaged in research work have access to the special libraries of the various departments on application to the persons in charge.

The College Library at Cambridge is open to the students of this School. The Boston Public Library, which contains a large collection of medical books, is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library has nearly 35,000 volumes, about half of which are periodicals, and 30,000 pamphlets. Nearly 500 current journals and transactions are on file. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily, except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August. It has always been free to medical students.

FELLOWSHIPS AND SCHOLARSHIPS.

FELLOWSHIPS.

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established with a yearly income of two hundred and twenty-five dollars each:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.
THE JOHN WARE MEMORIAL FELLOWSHIP.
THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before October 1.

Austin Fellowships. In 1900, four teaching fellowships, of five hundred dollars each, were established from the income of the Austin Fund.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

SCHOLARSHIPS.

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

Barringer Scholarships. Two, known as the Edward M. Barringer Scholarship No. 1, and the Edward M. Barringer Scholarship No. 2, and having a yearly income of three hundred dollars and two hundred dollars respectively, from a bequest of Edward M. Barringer, will be awarded to deserving students, preferably those of the fourth class.

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ISAAC SWEETSER SCHOLARSHIP was founded in 1892 by Mrs. Anne M. Sweetser. The income of two hundred and fifty dollars is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

CHARLES PRATT STRONG SCHOLARSHIP, with an income of one hundred dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

The Lewis and Harriet Hayden Scholarship for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income is two hundred and twenty-five dollars.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

Joseph Eveleth Scholarships. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to such needy and deserving students of the Medical School as the Medical Faculty shall annually recommend.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

The John Thomson Taylor Scholarship, with an income of two hundred dollars, was founded in 1899 by Mrs. Frederic D. Philip in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings.

The Joseph Pearson Oliver Scholarship, with an income of three hundred and twenty-five dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. (Harvard, 1871), to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

A fund of five thousand dollars, the gift of an unknown donor, was established in 1905, the income of which shall be payable every year to such meritorious and needy students in the Harvard Medical School as shall be recommended by the Administrative Board of the School.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Medical Faculty may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is payable every other year to one or more meritorious students needing assistance. The next payment will be made in 1908.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

All applications for scholarships or pecuniary aid, except for the Cheever and Hayden Scholarships, must be handed to the Dean on or before June 1.

Applications for the Cheever and Hayden Scholarships must be handed to the Dean on or before *November 30*. These scholarships are open only to students who are members of the school at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Dean.

PRIZES

Boylston Medical Prizes. — These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1906 no prizes were awarded.

For 1907 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on The results of Original Work in Anatomy, Physiology, or Physiological Chemistry. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before January 1, 1907.

For 1908 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology. The subject to be chosen by the writer.

Dissertations on these subjects must be sent to the same address as above on or before January 1, 1908.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

- 1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
- 2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: WILLIAM F. WHITNEY,

M.D., President; Harold C. Ernst, M.D., Secretary; Franz Pfaff, M.D., Theobald Smith, M.D., William T. Porter, M.D., Franklin Dexter, M.D., Edward H. Nichols, M.D.

The address of the Secretary of the Boylston Medical Committee is Harold C. Ernst, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Toppan and Sumner Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue.

COURSES FOR SPECIAL STUDENTS.

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work.

In addition, certain Departments offer courses, not a part of the regular curriculum, but specifically designed for special students; as follows:—

ANATOMY. Professor DWIGHT, Dr. J. WARREN, and Assistants.

- (1) Course for artists, teachers, and others. (Essentially the regular first-year course with dissection.)
 - (2) Special instruction and opportunities for research.

PHYSIOLOGY. Professor CANNON.

Physiological Research.

COMPARATIVE PHYSIOLOGY. Professor PORTER.

Physiological Research.

PHARMACOLOGY. Professor PFAFF and Dr. TYRODE.

Pharmacological Research.

BACTERIOLOGY. Professor Ernst and Drs. Page and Frothingham.

- (1) Elementary courses beginning at other times than October 1 and February 1, for groups of not fewer than four students.
 - (2) Advanced instruction to groups of not fewer than four students.
- (3) Research course for advanced students. Desks will be assigned at any time.

CLINICAL PATHOLOGY. Dr. WRIGHT.

- (1) Research in bacteriology and pathology.
- (2) Instruction in bacteriological and pathological technique and in diagnosis by laboratory methods.
- (3) Weekly demonstrations in pathological anatomy in conjunction with Dr. Richard C. Cabot, who will discuss the clinical aspects of the cases.

COMPARATIVE PATHOLOGY. Professor THEOBALD SMITH.

Research. Pathogenic micro-organisms of animal life.

Hygiene. Professor Harrington and Dr. Magrath.

- (1) Analysis of water and sewage.
- (2) Analysis of foods and the detection of adulterants.
- (3) Analysis of air and soils.
- (4) Inspection of meats and other foods.
- (5) Examination of disinfectants.
- (6) Research.

HOURS AND FEES.

Applicants for the above courses should make arrangements as to time and fees with the respective heads of departments. They should then register and pay their fees at the Dean's office.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged, for graduates of recognized medical schools. an improved plan of instruction, embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions: -

Massachusetts General Hospital, Boston City Hospital, Boston Dispensary, Massachusetts Eye and Ear Infirmary, Boston Insane Hospital, Boston Lying-in Hospital,

Infants' Hospital, Children's Hospital, McLean Hospital (for the Insane),

Carney Hospital.

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

Instruction in the graduate courses is, with but few exceptions, entirely distinct from that of the undergraduate department of the School; but students of the former are admitted also to all the regular lectures (not clinical) of the latter, without extra charge, during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June.

FEES.

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address Dr. William L. Richardson, Dean, Harvard Medical School, Longwood Avenue, Boston, Mass.

SUMMER COURSES OF INSTRUCTION.

During the summer of 1907, courses in many branches of practical and scientific medicine will be given by teachers in the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories of the School by the instructors in charge. These courses are open only to graduate and undergraduate students of medical schools recognized by the Faculty of Medicine, and to such others as the Dean of the Faculty approves.

A list of the Summer Courses will be announced early in the Spring. For further information address Dr. William L. Richardson, *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1906-07.

FEE.	Special. 25. 25. 25. 25. 25. 25. 25. 25. 25. 25	Special.
Time.*	Special Special Special After Nov. 1 After Feb. 1 After Feb. 1 Feb., Mar. Feb., Mar. Special Special Special	Special Special Special Nov., Dec. Special Oct.—June Special S
No. of Exer- cises.	6-8 6-8 6-8 6-8 6-8 6-8 6-8 6-8 6-8 6-8	44
PLACE.	Medical School	Med. Sch., Boston City & Danvey Institution Medical School Sch. Boston City & Danvey Institution Medical School Mass. General Hospital Boston City Hospital Boston City Hospital Boston City Hospital
Instructor.	Prof. Dwight Prof. Dwight Prof. Dwight Dr. J. Warren Dr. Mossler Dr. Washer Dr. Davis Dr. Davis Prof. Mostler Prof. Minot and Lewis, and Dr. Bremer Profs. W.T. Porter and Camon Profs. W.T. Porter and Camon Drs. Alsberg and Henderson	Drs. Alsberg and Henderson Drs. Alsberg and Henderson Dr. Henderson Dr. Alsberg Prof. Ernst Prof. Councilman and Mailory, and Dr. Wright Prof. Southard Prof. Southard Prof. Southard Prof. Ilarrington Prof. Harrington Prof. Pfaff and Dr. A. K. Stone Dr. Jocke Dr. Locke Dr. Locke Dr. Locke Dr. Prof. Dr. Prof. Dr. Prof. Dr. Prof. Dr. Prof. Dr. Locke Dr. Prof. Dr. Pro
SUBJECT.	Special Anatom. Instruction Anatomy of the Joints Topographical and Applied Anatomy Anatomy of the Joints Anatomy of Nose and Throat Genito-Urinary Anatomy, Remale Surgical Anatomy of Abdomen Elementary Embryology Histology Histology Histology Repecial Physiological Instruction Histology Research in Physiology Research in Physiology	

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Oct. and special. Dec., Jan. Dec., Jan. Oct.—Dec. Special Oct.—Jan. Special Oct.—Jan. Special Oct.—Jan. Throughout year Oct.—Jan.	Oct., Nov., Dec., Jan. Feb.—May Dec., Nov., Apr., June Sept.—Feb. Oct.—Jan.	Sept., Jan., Dec. Oct.—May Oct.—May Special	Oct.—May Special Nov.—Peb. Nov.—Feb. Feb.—May Special Oct.—May
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Mass. General Hospital """""""""""""""""""""""""""""""""""	Mass. General Hospital """" Boston City Hospital Mass. General Hospital	Boston City Hospital Children's Hospital Long Island Hospital Instructor's Laboratory	Special Mass. General Hospital Boston City Hospital """ Medical School Children's Hospital
Dr. Lord Dr. Stone Dr. Stone Dr. Stone Dr. Hewes Dr. Hewes Dr. Hewes Dr. Hewes and Pratt Address Prof. Burrell Drs. Harrington and Codman Drs. Harrington and Stone Drs. Manro and Bottomley Dr. Lund	Dr. F. Cobb Dr. C. A. Porter Dr. Codman Dr. Crandon Dr. Faulkner Dr. Jones	Dr. Crandon Prof. Burrell, Drs. H. W. Cushing and J. S. Stone Dr. Brown Dr. Brown	Dr. Brown Dr. Cheever Dr. Allen Dr. Allen Dr. Watson Dr. Hubbard Dr. Hubbard Dr. Paul Thorndike Dr. Nichols Frof. Bradford, Drs. Lovett, Brackett, Thorndike,
33. Diseases of the Lungs, 2 courses 33. Diseases of the Lungs, 2 courses 45. Digestive Diseases 36. Digestive Diseases 37. Laboratory Methods 38. Chinical Pathology 39. Medical Research 41. Major Surgery, 6 courses 42. Major Surgery, 6 courses 43. General Surgery 44. Abdominal Surgery 45. General Surgery 46. Abdominal Surgery 47. Abdominal Surgery 48. General Surgery		courses General Surgery of Children, 8 courses Röntgen Radiology, courses Röntgen Therapeutics	

* Time includes months named. When time and fee are "special," arrangements must be made with the instructor.
† Women admitted.

FEE.	\$25. 25.	ង្ខង្ខង្ខង្	8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	25.	25.25.25	25.	50.	25. 25.	50-75.
TIME.*	Mar.—May Oct.—Dec.	Jan.—Mar. Oct.—Dec. Jan.—Mar. Jar.—Dec. Mar.—May	Special Oct.—May Special Oct.—May Oct.—May	Oct.—May Oct.—May	Oct.—May June Oct.—Dec. Jan., Mar.	Oct.—May Oct.—May	Oct. May Oct., Nov., Dec., Jan.	Oct.—June Feb.—May Special Special	Special Oct.—May
No. of Exer-	:∞3	18 12 12 12 12 14 15 15 15 15 15 15 15 15 15 15 15 15 15	. 5.	26 12	26 12 15	26	48 24	15	15
PLACE.	Children's Hospital	""""""""""""""""""""""""""""""""""""""	Boston Lying-in Hospital Medical School Boston Lying-in Hosp. and	Boston City Hospital	Boston Dispensary St. Elizabeth's Hospital Carney Hospital	Infants', Children's, and Boston City Hospital Mass. General Hospital	Boston Dispensary	Mass. General Hospital Boston City Hospital Medical School	Med. Sch., Mass. Gen. & Long Island Hospitals Mass. General Hospital
INSTRUCTOR.	Address Prof. Bradford Dr. Lovett Dr. A. Thorndike	Dr. Soutter Dr. Brackett Drs. Brackett Dr. Lovett Dr. Brackett Dr. Goldhwait	Dr. Osgood The Department Staff Address Prof. C. M. Green The Department Staff Address Prof. C. M. Green	Prof. C. M. Green, Drs. Newell, Young, Friedman	and Mason Dr. Storer Dr. Storer Dr. Storer	Profs. Rotch, McCollom and Morse, Drs. Craigin, Ladd, and Dunn Prof. Rowen Drs. White	Drs. Post and C. M. Smith	Anor. Judiam, Drs. Laylor (and Waterman Dr. Knapp Dr. Taylor Dr. Taylor	Dr. Taylor Dr. Taylor or Dr. Waterman
SUBJECT.	63. Research and Special Work in Orthopedic Surgery, 2 courses 65 Potts Disease, 2 courses 65 Potts Disease, 2 courses		72. Deformities 73. Clinical Obstetrics, 8 courses 74. Clinical Obstetrics, 8 courses 75. Operative Obstetrics, 8 courses 76. Clinical and Operative Obstetrics 76.	77. A Gynaccology, 8 courses B Gynaccology, out-patient, 8	A and B Gynaecology 178. Gynaecology 179. Gynaecology 180. Operative Gynaecology	Pediatrics, 8 courses Dermatology, 4 courses	83. Advanced Dermatology, 4 courses 84. Syphilis, 2 courses	†85. Advanced Clinical Neurology †86. Normal Anat. of Nervous System †87. Parh. Anat. of Nervous System	†88. Advanced General Neurology †89. Clinical Neurology

26.	25.	25.	25.	Special.	Special.	.05	-007	00	*0.	20.
Oct.—May	FebApr.	Apr., May	Oct., Nov.	Special	Special	48 Oct Nov : Dec Jon	cer, rott, per, ban.	Reh Mar	T CO: TAT GIL:	Apr., May
:	25	12	26			48	2	9.4	į	24
McLean and Boston Insane Hospitals	`	27 27	3 :	2 7		Mass. General Hosnital		23 23 33		33
Drs. Cowles, Tuttle and Noyes	Dr. Hammond	Dr. Jack	Dr. Quackenboss	Dr. Spalding	Prof. Coolidge, Drs. Cobb,	Goodale, and Mosher	Prof. Coolidge, Drs. Clark	and Mosher	Prof. Coolidge, Drs. Clark	and Goodale
					2		63		2	
	tology	EY Comment	gy, z courses	A A A	96. Rhinology and Laryngology, 2		197. Rhinology and Laryngology, 2		†98. Khinology and Laryngology, 2	
Psychiatry	Operative Otology	Ophthalmolo		Ophthalmolo	Rhinology a	courses	Rhinology a	courses	Rhinology a	courses
90.	191.	000	0.1	95.	.96	1	197.		198.	

When time and fee are "special," arrangements must be made with the instructor. ‡ Women admitted conditionally. * Time includes months named.

† Women admitted.

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1906

No.	Subject	Instructor	Place	No. of Exer- cises	No. of Exer- cises	Ends	Days	Hour	Fee
	Anatomy								
-	Anatomy of Nose and Throat	Dr. Mosher	Medical School	12	:	:	Special	:	\$25
67	Anat. of male genito-urinary organs Dr. Davis	Dr. Davis	Medical School	9	:		Special	:	25
က	An. of female genito-urinary organs Dr. Wadsworth	Dr. Wadsworth	Medical School	5	:	:	M.Tu.W.Th.F.		20
4	Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	9	June 1	Sept. 29	•		25
	Histology and Embryology								
5	Element. Histology & Embryology	Dr. Lewis	Medical School	26	July 2	2 July 31 Daily	Daily	9-2	35
	Physiology								
16	Physiology	Prof. Porter	Medical School	30	June 25	June 25 July 28 Daily	Daily	9-5	40
	Biological Chemistry								
+1	Laboratory practice and lectures in Biological Chemistry	Drs. Alsberg and Henderson	Medical School	26	July 2	2 July 31 Daily	Daily	9-5	35
<u>∞</u>	Research in Biological Chemistry	Drs. Alsberg and Henderson	Medical School		:		:		:
	Pathology								
6	Pathological Technique	Prof. Mallory	City Hospital	41	July 2	2 Aug. 18 Daily	Daily	9-5	90
10	Neuropathology	Dr. Southard	Danvers Ins. Hosp.	25	Sept. 1	Sept. 1 Sept. 29 Daily	Daily	9-6	40

	30	30	30		20		20	1	15	25	30	30	50
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	3.15	00			1		::		10-11	10-121 10-121	10-12½	81-12 81-12 81-12	10-5
	1 M.Tu.W.Th.F.	M.Tu.W.Th.F.	Special		2 Aug. 10 M.Tu.W.Th.F.		3 Sept. 22 Daily		30 M. W. F. 31 M. W. F.	31 Tu. Th. F. 31 Daily	31 Daily 30 Daily	31 Daily 31 Daily 29 Daily	Daily Daily
	1	g. 31			g. 10		ne 30		y 30 g. 31	y 31 g. 31	y 31		y 14 g. 16
-	2 Aug.	2 Aug.			2 Au		Jan 3 Sep		2 July 1 Aug.	3 July 2 Aug.	May June	2 July 1 Aug. 1 Sept.	4 Jul
	July	Aug.			July		June 11 June 30 Daily Sept. 3 Sept. 22 Daily		July Aug.	July Aug.	May June	July Aug. Sept.	June 14 July 14 Daily July 16 Aug. 16 Daily
	22	22			30		18		13	14	26	26 26 26	27
	Medical School	Medical School	Medical School		Medical School		Medical School do.		Mass. Gen. Hosp. do.	Mass. Gen. Hosp.	Mass. Gen. Hosp. do.	Mass. Gen. Hosp. do. do.	Mass. Gen. Hosp.
	Dr. Perry	Dr. Page	Dr. Frothingham		Prof. Harrington and Dr. Magrath		Dr. Tyrode do.		Dr. Vickery do.	Dr. Smith do.	Dr. Smith do.	Dr. Pratt do. do.	Dr. R. C. Cabot do.
Bacteriology	Bacteriology	Bacteriology	Infect. Diseases of Animals	Hygiene	Hygiene	Pharmacology & Therapeutics	a. Pharmacology & Therapeutics Dr. Tyrode do.	Medicine	a. Clinical Medicineb. do.	a. Clinical Medicine b. do.	a. Clinical Medicineb. do.	a. Clinical Medicineb. do.c. do.	a. Phys. and Clin. Diagnosisb. do.
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† Women are admitted.

No.	Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
	Medicine (continued)								
†21	a. Physiological Therapeutics	Dr. R. C. Cabot do.	Mass. Gen. Hosp.	27	June 1	June 14 July 14 Daily July 16 Aug. 16 Daily	Daily Daily	6	25
+22	Relation of Clinical Diagnosis to Post-Mortem Findings	Drs. R. C. Cabot and O. Richardson	Mass. Gen. Hosp.	∞	June 1	June 14 Aug. 16		3-5	10
23	Physical Diagnosis	Dr. Lord	Mass. Gen. Hosp.	21	June	June 30 Daily	Daily	9-1	25
24	a. Physical Diagnosis	Dr. Palfrey	Long Island Hosp.	1		June 29 Tu. Th.	Tu. Th. F.	9.15	15
	<i>b</i> . do. c. do.	do.	do. do.	13	July Aug.	2 July 31 2 Aug. 31	2 Aug. 31 Tu. Th. F. 2 Aug. 31 Tu. Th. F.	9.15	15
25	Lab. methods of Clinical Diagnosis	Dr. Hewes	Mass. Gen. Hosp.	30	June 1	18 July 28	28 M.Tu.W.Th.F.	9-12	30
26	Diseases of Stomach and Intestines	Dr. Hewes	Mass. Gen. Hosp.	20	July	2 July 31	31 M.Tu.W.Th. F.	9-11	25
127	Diseases of the Digestive Organs	Dr. White	City Hospital	12	June	1 June 30	•	:	15
	Pediatrics								
-28	Pediatrics	Dr. Morse	Infants' Hospital	12	June	1 June 29	1 June 29 M. W. F.		20
129	Pediatrics	Dr. Dunn	Infants' Hospital	26	July	2 July 31	Daily	:	20
130	Pediatrics	Drs. Morse and Dunn	Children's Hosp. & Infants' Hosp.	24	Aug.	1 Aug. 31 Daily	Daily		90
131	Pediatrics	Dr. Bowditch	Children's Hosp.	13	Sept.	1 Sept. 29	1 Sept. 29 Tu. Th. S.	11	20
	Surgery								
32	General Surgery	Dr. Munro	Carney Hospital	24		:	Daily	9-12	25
33	433 Major Surgery	Drs. Scudder and Greenough	Mass. Gen. Hosp.	24	June	24 June 1 Sept. 29 Daily	Daily	9-1	25

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25	25	25	25	25	25	25	25	25	20	15	15	25	25	25	25	25	25	25	25	25	15	15
9-12	10	10	10	10	10	6	8	6		9-12	9-12	10	10	10	10-1	10-1	10-1	10-1	$9\frac{1}{2}-11\frac{1}{2}$	$9\frac{1}{2}$ $-11\frac{1}{2}$	9-12	9-12
24 June 4 June 30 Daily 24 July 2 July 28 Daily	24 June 1 June 30 Daily	July 2	Aug. 1	24 Sept. 1 Sept. 29 Daily	26 Sept. 1 Sept. 29 Daily	26 June 1 June 30 Daily	26 Aug. 1 Aug. 31 Daily	26 Sept. 1 Sept. 29 Daily		26 July 2 July 31 Daily	26 Aug. 1 Aug. 31 Daily	26 June 1 June 30 Daily	26 July 2 July 31 Daily	29 Aug. 1 Aug. 31 Daily	24 June 1 June 30 Daily	24 July 2 July 31 Daily	24 Aug. 1 Aug. 31 Daily		24 Aug. 6 Aug. 31 Daily	24 Sept. 3 Sept. 29 Daily	24 Aug. 1 Aug. 31 Daily	24 Sept. 1 Sept. 29 Daily
61 61		61	C1	64	61	21	21	61		61	61	01	C1	C1	2	63	61	67	1 21	61	1 24	C1
Mass. Gen. Hosp.	City Hospital	do.	do.	do.	City Hospital	City Hospital	do.	do.	Medical School	Mass. Gen. Hosp.	do.	Mass. Gen. Hosp.	do.	do.	Mass. Gen. Hosp.	do.	do.	do.	City Hospital	do.	City Hospital	do.
Drs. Mumford, Williams, Mass. Gen. Hosp. and O. Richardson do.	Drs. Lund and Nichols	do.	do.	do.	Dr. Lothrop	Dr. Hubbard	do.	do.	Dr. Cheever	Dr. Farrar Cobb	do.	Dr. Brewster	do.	do.	Dr. Codman	do.	do.	do.	Dr. Faulkner	do.	Dr. Crandon	do.
Major Surgery do.	Clinical Surgery and Pathology Drs. Lund and Nichols of Surgical Diseases			do.	Major Surgery	Major Surgery	· do.	· do.	Technique of Major Operative Surgery on Animals	a. Out-patient and Minor Surgery Dr. Farrar Cobb	do.	. Minor Surgery .	do.	· do.	Out-patient Surgery	do.	do.	do.	Minor Surgery	· do.	. Out-patient Surgery	do.
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† Women are admitted.

Fee		25	25	25	25	25	25	25	25	25	25	25	25	25		20	90	90	25	15
Hour]		:	:	:		10	10	10	4-6	9-4	9-4	8 P.M.	8 P.M.	8 P.M.			:			:
Days		Daily	31 Daily	31 Daily	29 Daily	29 M. W. F.	30 M. W. F.	28 M. W. F.	30 M. Tu. W.S.	31 M. Tu. W.S.	29 M. Tu. W. S.	1 June 29 M. W. F.	30 M. W. F.	28 M. W. F.		Daily	Daily	Daily	:	
Ends		1 June 30 Daily	2 July 31		Sept. 29	1 June 29	2 July 30	3 Sept. 28	June 30	2 July 31	3 Sept. 29	June 29	2 July 30			2 July 31 Daily	1 Aug. 31 Daily	Sept. 29 Daily	2 Aug. 15	Sept. 29
No. of Exer- cises		June 1	July 2	Aug. 1	_	June 1	July 2	Sept. 3		July 2		June 1	July 2			July 2	Aug. 1	-	July 2	Aug. 16 Sept. 29
No. of Exer- cises		30	30	30	30	12	12	12	16	16		15	15	15		26	56	26	24	12
Place		Children's Hosp.	do.	do.	do.	Carney Hospital	do.	do.	Children's Hosp.	do.	do.	Instructor's Lab.	do.	do.		Children's Hosp. Boston Dispensary, Warren Museum	do.	do.	Children's Hosp.	Children's Hosp.
Instructor		Dr. Stone and volunteer Children's Hosp.	do.	do.	do.	Dr. Brown	do.	do.	Dr. Brown		do.	Dr. Brown	do.	do.		Prof. Bradford, and Drs. Lovett, Brackett, Dane, Soutter, Low, Brown, Adams.	do.	do.	Dr. Lovett	Dr. Brackett
Subject	Surgery (continued)	. Gen. Surgery of Children	do.	do.	do.	. Surgical Diagnostic Radiology		do.	. Surgical Diagnostic Radiology		. do.	Theory and Practice of the Roentgen Ray		do.	Orthopedic Surgery	a. Orthopedic Surgery		do.	Lateral Curvature	50 Orthopedic Surgery
No.		144 a.	6.	С.	d.	145 a.	9.		146 0.	6.	<u> </u>	†47 a.	9.	ಲ		48	0.	0	49 I	20 09

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25	25	25	25	20		15	25	25	25	25		30	20	20	20		25	25
93-123	94-124	$9\frac{1}{2} - 12\frac{1}{2}$	$9\frac{1}{2} - 12\frac{1}{2}$			10-12	9-10	91-121	93-123	$9\frac{1}{2} - 12\frac{1}{2}$			11	11	11		931	10-12
	31 Daily					31 M. Tu. Th. F. 31 M. Tu. Th. F.	31 Daily	30 Daily	31 Daily	29 Daily		Daily	31 Daily	Daily	29 Daily		31 M. W. F.	2 July 31 Tu. Th. S.
June 1 June 30 Daily	2 July 31	1 Aug. 31 Daily	1 Sept. 29	2 Aug. 15		2 July 31 2 Aug. 31	2 July 31	June 30 Daily	I Aug. 31	1 Sept. 29		1 Oct. 1 Daily	2 July 31	1 Aug. 31 Daily	1 Sept. 29		2 Aug. 31	July 31
June 1	July 2		Sept. 1	July 2		July 2 Aug. 2	July 2		Aug. 1				July 2	Aug. 1	Sept. 1		July 2	July 2
26	26		26	18		18	24	96		56		· · May	26		25		15	13
Mass. Gen. Hosp.	do.	do.	do.	Children's Hosp.		City Hospital do.	Boston Dispensary	Boston Dispensary	do.	do.		Lying-in Hospital	Lying-in Hospital	do.	do.		Carney Hospital	City Hospital
	do.	do.	do.	Dr. Soutter		Dr. Thorndike do.	Dr. Cotton	Dr. Perry	do.	do.		Dr. Swain, assisted by Drs. Friedman and Lying-in Hospital Torbert.	Dr. Swain	do.	Dr. Torbert		Dr. Storer	Dr. Friedman
a. Diseases of the Bonesand Joints Orsond Association	Ъ. do.	c. do.	d. do.	Orthopedic Surgery	Genito-Urinary Surgery	a. Genito-Urinary Surgery b. do.	Minor Genito-Urinary Surgery	a. Genito-Urinary Diseases	do.	d. do.	Obstetrics	Clinical Obstetrics	a. Clinical Obstetrics	b. do.	c. do.	Gynaecology	Operative Gynaecology	Gynaecology
151				52		53	54	55				56	29				158	59

† Women are admitted.

Fee		30	30	25	25	67		35	35	35	15	25	25	25	25		25 25	
Hour		93	93	93	910	ict ic		9-12	9-12	9-12	9-12	10	10	10	10		9-12 9-12 9-12	
Days		1 Aug. 31 M. W. F.	3 Sept. 29 M. W. F.	30 M. W. F.	2 Aug. 30 Tu. Th. S.	14. 14. 5.		Daily	Daily	Daily	M. W. Th.	June 29 M.Tu.W.Th.F.	2 July 31 M.Tu.W.Th. F.	1 Aug. 31 M.Tu.W.Th.F.	3 Sept. 28 M.Tu.W.Th.F.			
Ends		Aug. 31	Sept. 29	2 July 30	Aug. 30	achr 70		June 30 Daily	2 July 31 Daily	Sept. 29 Daily	Aug. 30	June 29	July 31	Aug. 31	Sept. 28		1 June 30 Daily 2 July 31 Daily 1 Aug. 31 Daily	
No. of Exer- cises.		Aug. 1	Sept. 3	July 2	Aug. 2	1		June 1	July 2	Sept. 1	Aug. 1				Sept. 3		June 1 July 2 Aug. 1	
No. of Exer- cises.		12	12	13	13	-		26		26	13	1			21		26 26 26	
Place		City Hospital	do.	City Hospital	City Hospital	200		Mass. Gen. Hosp.	do.	do.	Mass. Gen. Hosp.	Boston Dispensary	do.	do.	do.		Mass. Gen. Hosp. do. do.	Print Billion Administration
Instructor		Dr. Young	do.	Dr. Mason.	Dr. Mason	•05		Drs. Bowen, White, Towle, and Burns.	do.	do.	Dr. Burns	Dr. C. M. Smith	do.	do.	do.		Dr. Baldwin do. do.	
Subject	Gynaecology (continued)	a. Gynaecology — Diagnosis and Treatment	b. do.	Major Gynaecology	a. Minor Gynaecology		Dermatology & Syphilis	a. Clinical Dermatology	b. do.	c. do.	Clinical Dermatology	CO	b. do.		d. do.	Neurology	a. Clinical Neurologyb. do.c. do.	
No.		09	2	61	62			63			164	99	_				99	

	25	25		25	25	25	25	25	::	:	25		20	20	20
		-66 ·				9-11	9-12	9-12	::	:	7½-10 P.M.		10	:	
	31 Daily 29 Daily	30 M. W. F. 31 M. W. F.		31 Daily	31 Daily	31 Daily 30 Daily 31 Daily	31 Daily	30 Daily 31 Daily	31 Daily 30 Daily	31 Daily			M. W. F.	30 M. W. F.	31 M. W. F. 28 M. W. F.
	Aug. 31 Daily Sept. 29 Daily	2 July 30 1 Aug. 31		1 May 31	2 July 31	1 May 31 1 June 30		1 June 30 2 July 31	1 May 31 Daily 1 June 30 Daily	2 July 31	June Sept.		1 Sept. 30 M. W.	2 July 30	1 Aug. 31 M. 3 Sept. 28 M.
	Aug. 1 Sept. 1	July 2 Aug. 1		May 1		May 1 June 1		June 1 July 2	May 1 June 1	July 2	June Sept.		June 1		Aug 1 Sept. 3
	26	13		26	26	26	25	25	25.	25	12 21		18	12	2 2
	Eye and Ear Inf.	Eye and Ear Inf.		Eye and Ear Inf.	do.	Eye and Ear Inf.	Eye and Ear Inf.	do.	Eye and Ear Inf.	do.	Medical School		Mass. Gen. Hosp.	City Hospital	do.
		Dr. Spalding do.		Dr. Crockett	do.	Dr. Lecompte do.	Dr. Wales	do.	Dr. Wales	do.	Dr. Wales do.		Drs. Clark, Goodale, or Mass. Gen. Hosp.	ii	do.
Upnthalmology	Operations and Dis. of the Eye Dr. Quackenboss do.	Clinical Ophthalmology do.	Otology	Operative Otology		Clinical Otology do.	Clinical O	do. do.	Research in Otology	do.	Oper, Surg. of Temp. Bone do.	Laryngology	†74 Clinical Laryngology	Rhinology and Laryngology	do.
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† Women are admitted.

TABULAR VIEW OF UNDERGRADUATE COURSES.

FIRST YEAR - First Half-Year

		FIR	FIRST YEAR FIRST HAIT-YEAR	Hall-Year		
	MONDAY.	TUESDAY.	Wednesday.	THURSDAY.	FRIDAY.	SATURDAY.
9-10	October, Anatomy November, Dissection and	October, January. Anatomy. Lecture. November, December. Dissection and Demonstrations.	Oct., Nov., Dec., Jan. Anatomy. Lecture.	October, January. Anatomy. Lecture. November, December. Dissection and Demonstrations.	anuary. Lecture. December.	January, 9-11. Anatomy. Lecture.
10-1		Nov	October. Osteology. Wovember, December, January. Dissection and Demonstrations.	ary.		Oct., Nov., Dec., Jan. 11-1. Anatomy. Lecture.
2-6		Brai Lectures,	January. Brain and Special Sense Organs. Lectures, Demonstrations, and Recitations.	ans. ecitations.		
2-2.30		Oct	October, November, December. Histology. Lecture.)er.		

October, November, December. Histology. Lecture.	Histology. Laboratory.	
2-2.30	2.30-6	

FIRST YEAR. — Second Half-Year. Physiology. Fernuary.

TUESDAY. WEDNESDAY. THURSDAY. FRIDAY. SATURDAY.	Conference.	9.35- Written Test. 10-11 Recitation.	9.50-1 Laboratory Experiments. 11-12 Demonstration.	March, April, May.	Lecture. Conference. 9-9.45 Thesis.	Written Test. 10-11 Recitation.	10.20- Laboratory Experiments. 11-12 Demonstration.	12.15-1 Thesis.	Biological Chemistry.	Lecture. Daily except Saturday.	
						st.					
Monday.	Conference.	2 Laboratory Experiments.	Written Test.		Lecture. Conference.	Written Test.	Laboratory Experiments.	Written Test.			
	9-9.30	9.35-12	12-1		9-10	10.05-	0.20-12	12-1		2-3	

SECOND YEAR. - First Half-Year.

SECOND YEAR. - Second Half-Year.

		SECON	SECOND IEAK. Second hall-real.	nu nail-real.		
	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
	M. G. II.	М. G. H.	В. С. И.	M. G. H.	M. G. H.	В.С. И.
9-10	Clinical Medicine Clinic Shattuck	Surgery Chinic M. H. Richardson	Surgery Clinic Lothrop	Theory & Practice Clinic Fitz	Surgery Clinic M. H. Richardson	Clinical Medicine Clinic Jackson
10-12	Sa	Section Work				Surgery Clinic J. B. Blake
1-3		Clinical Pathology				
3-4	Hygiene. L. Harrington	Theory&Practice. L. Fitz Room 201	Hygiene. L. Harrington	Hygiene. L. Harrington	Theory&Practice. L. Fitz Room 201	
4-5	Surgery. L. Warren Room 201	Pharmacology. L. Pfaff	Pharmacology. L. Pfaff	Surgery. L. Warren Room 201	Pharmacology. L. Pfaff	
5-6	Surgical Technique 6 lectures Lothrop Room 201	Surgery. L. Warren Room 201			Surgery. R. Burrell Room 201	

THIRD YEAR. - First Half-Year.

THURSDAY. FRIDAY.	ine Neurology Clinical Medicine Clinic Clinic Sears, B. C. H.	Theory and Practice Pediatrics Clinical L. Fitz, M. G. H. Rotch, C. H.	Section Work.		Obstetrics. L. W. L. Richardson Room 201 Roca 201	Pediatrics. L. Therapeutics. L. Room 205	Surgery, R. Obstetrics, R. Burrell Room 201 Room 205
WEDNESDAY.	Clinical Medicine Clinic I. Shattuck, M. G. H.	Dermatology Clinic Bowen, M. G. H.	Š		Obstetrics Conference Green Room 205	L. Surgery. L. Warren Room 201	L. Opthalmology Standish Room 205
TUESDAY.	Clinical Medicine Clinic Jackson. B. C. H.	Clinical Surgery Clinical L. Burrell, B. C. H.			Theory and Practice L. Fitz Room 201	Oct., Nov. Dermatology. I Bowen Room 205 Dec., Jan. Syphilis. L. Post Room 205	Oct., Nov. GU. Surgery. I Thorndike Room 201
Monday.	Theory and Practice Clinic Cutler. M. G. H.	Surgery Clinic M. H. Richardson M. G. H.			Obstetrics. L. W. L. Richardson Room 205	Surgery. L. Wanten Room 201	Ophthalmology Standish Room 205
	Class Exercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

THIRD YEAR. - Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
Class Exercises 9-10	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic Bartol B. C. H	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic Sears, B.C. H.	Clinical Medicine Clinic Bartol, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. H.
10-11	Surgery. Clinic M. H. Richardson M. G. H.	Clinical Surgery Clinical L. Burrell, B. C. H.	Dermatology Clinic Bowen, M. G. H.	Clinical Surgery Clinical L. Burrell, Gay, or Monks, B. C. H.	Feb., Mar. Pediatrics Climical L. Rotch, C. H. Morse, Mo. Grave St. Apr., May Syphulis Climical L. Post, B. D.	Theory and Practice Clinic Fitz, M. G. H.
Sections 11-1			Section	Section Work.		
2-3	Municip. Sanita. Durgin Room 207		Psychiatry Cowles Room 201	Municip. Sanita. Durgin Room 207		
3-4	Obstetrics. L. W. L. Richardson Room 205	Surgery Case Teaching J. B. Blake	Gynaecology L. or R. Green, Room 205	Obstetrics. L. W. L. Richardson Room 205	Obstetrics. R. Newell Room 205	Psychiatry Clinic Cowles, B.I.H.
4-5	Pediatrics. L. & R. Rotch, Morse Room 205	Pediatrics. L.&R. Rotch, Morse Room 205	Obstetrics Conference Green, Room 205	Laryngology Lecture Coolidge, Room 205	Gynaecology. L. Green Room 205	
5-6	Otology Lecture Blake, Room 205	Clinical Medicine Case Teaching R. C. Cabot Room 205	Clinical Medicine Case Teaching R. C. Cabot Room 205	Otology Lecture Blake, Room 205		

DEGREES.

On February 28, 1906, degrees were conferred as follows: -

M.D.

Leslie Talbot Baker, A.B. 1900.

Freeman Dodd Bosworth, Jr., A.B. 1901.

Francis Lowell Burnett, s.B. 1902.

Charles Wilson Goodwin, B.P. (Brown Univ.) 1897.

Harry Frye Holt.

Charles Arthur Oak.

David Robinson, A.B. (Brown Univ.) 1901.

Harold Elmer Ellsworth Stevens, A.B. (Bates Coll.) 1901.

Henry Tolman, Jr.

Rufus Adrian Van Voast, PH.B. (Yale Univ.) 1900.

Carl Hamlin Witherell, A.B. (Colby Coll.) 1901.

M. D. (Out of course.)

Francis Eugene Talty, A.B. (Manhattan Coll.) 1901, as of the class of 1905.

On Commencement Day, June 27, 1906, degrees were conferred as follows:—

M.D.

Parnag Adam Adamian, A.B. (Central Turkey Coll.) 1897, B.D. (Epis. Theol. School, Cambridge) 1901.

Harold Woods Baker, s.B. 1903.

John Mathews Birnie, A.B. (Williams Coll.) 1901.

Walter Meredith Boothby, A.B. 1902.

Harold Milton Bruce, A.B. 1902.

Henry Alphonsus Callahan, A.B. (Boston Coll.) 1902.

Merrill Edwin Champion, A.B. 1902.

Gilman Leeds Chase, A.B. 1903.

Charles Leonard Christiernin, A.B. 1902.

William Henry Connor, A.B. (Holy Cross Coll.) 1902.

Jeremiah Joseph Corbett, A.B. (St. Francis Xavier's Coll.) 1899.

Fred Julius Fassett, A.B. (Yale Univ.) 1898.

Pippo Joseph Gafforio, B.L. (Dartmouth Coll.) 1900.

Henry White Godfrey, A.B. 1902.

Paul Williams Goldsbury, A.B. (Williams Coll.) 1892.

Frank Andrew Hamilton.

Ralph Augustus Hatch, s.B. 1903.

Charles Byam Hollings, A.B. 1900.

Charles Herbert Holt, PH.B. (Brown Univ.) 1902.

Herbert William Johnson.

Roger Kinnicutt, A.B. 1902.

Robert James Kissock, A.B. 1903.

William Theodore Knoop, A.B. (Brown Univ.) 1901.

Roscoe Hosmer Knowlton, A.B. 1903.

William Edwards Ladd, A.B. 1902.

Jerome Sam Leopold, A.B. 1903.

Bernard Francis McGrath, A.B. (Georgetown Univ.) 1894, M.D. (ibid.) 1895.

George Joseph McKee.

Daniel Francis Maguire, A.B. 1903.

John Brown Manning, s.B. 1903.

Francis Vincent Murphy, A.B. (Dartmouth Coll.) 1902.

James Archer O'Reilly, A.B. 1902.

Oscar Pardo.

Bradford Hendrick Peirce, A.B. 1902.

Dunlap Pearce Penhallow, s.B. 1903.

Lucius Beverly Pond, A.B. (Yale Univ.) 1902.

David Damon Pratt, s.B. (Dartmouth Coll.) 1902.

Frederick Haven Pratt, A.B. 1896, A.M. 1898.

Charles Arnold Reese, A B. (Brown Univ.) 1902.

Edward Hammond Risley, A.B. (Yale Univ.) 1902.

John Carter Rowley, A.B. 1902.

Arthur Hiler Ruggles, A.B. (Dartmouth Coll.) 1902.

Harvey Beede Sanborn, A.B. (Dartmouth Coll.) 1902.

Philip Haskell Sylvester, A.B. 1902.

James Guinne Trimble, Jr., A.B. (Fiske Univ.) 1902.

Charles Sampson Turner, Ph.B. (Brown Univ.) 1901, A.M. (ibid.) 1902.

Orion Vassar Wells, A.B. (Boston Univ.) 1902.

Benjamin Ezra Wood, A.B. 1901.

John Howard Wyman, A.B. (Bowdoin Coll.) 1901.

M.D. cum laude

Williston Wright Barker, A.B. (Brown Univ.) 1902.

William Bradford Bartlett, A.B. 1902.

Leslie Lawson Bigelow, A.B. 1903.

David Hartin Boyd, A.B. (Washington & Jefferson Coll.) 1902.

Harold Granville Calder, A.B. (Brown Univ.) 1902.

Laurence Dudley Chapin, A.B. 1902.

Arthur Edwin Darling, A.B. (Bates Coll.) 1902.

Channing Frothingham, Jr., A.B. 1902.

Ralph Harvard Goldthwaite, A.B. 1903.

Robert Montraville Green, A.B. 1902.

Carleton Ray Metcalf, A.B. 1902.

Charles Galloupe Mixter, s.B. (Massachusetts Inst. of Tech.) 1902.

William Jason Mixter, s.B. (Massachusetts Inst. of Tech.) 1902. Henry Church Pillsbury, A.B. (Dartmouth Coll.) 1902.

Edward Peirson Richardson, A.B. (Dartmouth

Wilbur Augustus Sawyer, A.B. 1902.

Ernest Harold Sparrow, A.B. 1902.

Emil Herman Stone, A.B. 1902.

Fresenius Van Nüys, A.B. (Univ. of Virginia) 1899.

James Herbert Young, s.B. 1903.

ADMISSION EXAMINATION.

June, 1906.

CHEMISTRY.

1. What are the properties of the oxides of sulphur, of carbon, and of iron? How is sulphuric acid prepared?

2. How much silver chloride can be prepared from 14.7 gm. hydrochloric acid? $(H=1,\ Ag=108,\ Cl=35.5)$ If one liter of oxygen and two liters of hydrogen be exploded, what is the volume of the resulting aqueous vapor?

3. How do you distinguish between nitric, hydrochloric, and acetic acid?

4. How do you prove the presence of copper and lead when both are present?

EXAMINATION PAPERS.

(Annual Examinations, 1906.)

First Year Studies.

ANATOMY. - Professor Dwight.

- 1. Describe the clavicle.
- 2. Describe the hip-joint.
- Describe the compressor urethrae muscle, giving its relations to fasciae.
- 4. Describe the circulation of the liver.
- Describe the vagina and the neck of the uterus. Give the anterior and posterior relations of the vagina.
- 6. Describe the origins, deep and superficial, of the trigeminal nerve.

Dental students will substitute the following questions for 1, 3, and 5 of the above.

- 1. Describe the mandible.
- Describe the antrum of Highmore, giving its relations to teeth and its development.
- 5. Describe the bicuspid teeth.

HISTOLOGY AND EMBRYOLOGY. - Professor MINOT.

[Each student is given three sections to correspond with the first three questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

- 1. Draw and describe the lymphoid tissue. Where is it found in the organ?
- 2. What is the specimen? Draw and describe its various layers. Of what germ layers is it composed?
- 3. What is the organ? Draw and describe all the epithelial structures found in it.
- 4. From a chick embryo of the age studied in the laboratory, draw a transverse section passing through a primitive segment (protovertebra). Label all the parts, and state the adult derivative of each. (Do not describe the transformations to the adult structures.)
- 5. Describe the development of the testis, and its relations to the mesonephros (Wolffian body). Account for the germ cells, but do not describe spermatogenesis, the descent of the testes, or the membranes surrounding them.
- 6a. For medical students only. Describe briefly the development of the placenta, including both the fetal and the maternal portions.

6b. For dental students only. Describe the temporary tooth and its adjacent membranes as they appear in the section provided. No drawings of this specimen are required.

PHYSIOLOGY. - Professor W. T. PORTER.

[Answer any three questions, but not more than three. Mention, where possible, experimental evidence in support of your opinion. Matter not bearing directly on the question asked will count against the writer.]

- 1. Give a general account of the vasomotor nervous system.
- 2. Discuss the secretion of urine.
- 3. Discuss the changes of pressure in the auricle, ventricle, and aorta.
- 4. State the principal data regarding taste and smell.

PRACTICAL EXAMINATION IN PHYSIOLOGY.

- [Each student is required to make four of the six experiments drawn by him, and to write an account of his observations on the blank furnished herewith. Where the results of the experiments are not expressed in a graphic record they must be demonstrated to the instructor.]
- 1. Record the action of the sympathetic on the heart. Demonstrate the progressive spreading of impulses in the central nervous system. Record curves showing the influence of changes in the acrtic pressure on the interval between the beginning of ventricular contraction and the opening of the semilunar valves (in the artificial scheme).
- 2. Demonstrate that the cardiac systole is a simple and not a tetanic contraction. Show the influence of load on the work done by the skeletal muscle. Show where the more complicated coördinated reflex acts have their centres.
- 3. Show evidence that the ventricular contraction wave may be transmitted by muscular tissue. Prove that the excitability of a nerve is altered in the neighborhood of the anode and the cathode during the passage of the galvanic current. Secure a record of the effect of duration of stimulus on smooth muscle.
- 4. Furnish experimental evidence for an explanation of the auriculoventricular interval. Prove that the galvanic current stimulates during the whole time of its passage through an irritable tissue. Demonstrate the influence of increased load on ventricular contraction.
- 5. Prove the existence of tonic contraction of muscle. Demonstrate the current of action in muscle or nerve. Give experimental evidence that the vagus connects with the nerve cells in the heart.
- 6. Demonstrate polar stimulation by the galvanic current. Show the vasomotor functions of the spinal cord. Demonstrate the inhibition of reflex action in the frog.
- 7. Show the function of the anterior spinal nerve-roots. Record with the artificial scheme pulse curves of low arterial tension and high arterial tension, and discuss their method of production. Contrast diagrams showing the formation of the image (1) in myopia, (2) in hypermetropia, (3) in hypermetropia with a correcting lens.

- 8. Record the effect of inhibition of the heart on arterial pressure in the frog. Demonstrate on muscle the different effect of sudden and of gradual increase in intensity of stimulus. Prove the discontinuous nature of tetanic contraction.
- 9. Record the effect of stimulation of the vagus on the beat of the ventricle. Show that all contractions of heart muscle are maximal. Give experimental evidence that a nerve fibre may conduct impulses in both directions.
- 10. Show by diagram the method of determining the size of a retinal image. Demonstrate the limits of the refractory period and the existence of the compensatory pause. Prove that the demarcation current (current of injury) may act as a stimulus.
- 11. Record curves showing the influence of temperature on the contraction of skeletal muscle. Demonstrate differences in the physiology of smooth and striated muscle. Show that the control of movements is localized at different levels of the spinal cord.
- 12. Show that a constant stimulus may cause periodic contraction. Show the influence of fatigue on muscular contraction. Draw a construction showing the formation of the image in the indirect method of observing the retina.
- 13. Show the segmental arrangement of the reflex apparatus. Draw a diagram showing the course of the rays in astigmatism. Show the influence of an increase in peripheral resistance on the blood pressure in the frog.
- 14. Prove the independent irritability of muscle. Show experimental proof of the law of contraction with weak, medium, and strong ascending currents. Demonstrate with the artificial thorax the relations between pulmonary and intra-thoracic pressure during inspiration and expiration. State these relations in writing, with diagrams.
- 15. Compare an isometric contraction with an isotonic contraction. Obtain from the artificial scheme of the circulation a characteristic pulse curve of aortic regurgitation and explain its production. Demonstrate and discuss the apparent purpose in reflex action.
- 16. Demonstrate that the physiological anode and cathode may differ from the physical poles. Prove that oxidation may be caused by animal tissue. Demonstrate the influence of the sympathetic nerve on the iris of the frog.
- 17. Demonstrate polar inhibition. Demonstrate the importance of the nucleus in intracellular oxidations. Prove that tonic and simple contractions of the same tissue may occur at the same time.

BIOLOGICAL CHEMISTRY. - Drs. Alsberg and Henderson.

(2 hours written.)

- 1. What is the constitutional relationship between ethyl alcohol, aldehyde and acetic acid? Where in the organism are compounds to be found which contain the alcohol group?
 - 2. Where does cholesterin occur? What are its properties?
- 3. What is the chemical relationship between glucose and cane-sugar? What is the fate of cane-sugar upon ingestion?

- 4. Very briefly discuss the nature of enzymes and their action.
- 5. What is the nature of the proteid molecule? What is haemoglobin? What are nucleoproteids?
 - 6. What can you say about acidosis?
 - 7. What are the sources of the uric acid of the urine?
 - 8. What are the sources of body fat?
 - 9. In what forms is sulphur to be found in the urine?
 - 10. What do you understand by the availability of the food?

BIOLOGICAL CHEMISTRY. - Drs. Alsberg and Henderson.

URINARY ANALYSIS AND HAEMATOLOGY.

(I hour written.)

- 1. What are the elements of a urinary sediment which together indicate the existence of an active process somewhere in the urinary tract?
- 2. Give an example of a sediment found in a case of active inflammation of the kidney of an acute nature. What does the presence of fat in casts mean?
- 3. What other substances besides serum albumin may give the reaction in the nitric acid test? How can you distinguish each of these from serum albumin?
- 4. What other substances may be present in the urine besides dextrose which may give reactions with (1) the Fehling's test, (2) the fermentation test? By what physical or chemical tests can you distinguish amorphous phosphates from amorphous urates; uric acid crystals from calcic oxalate crystals?
- 5. Describe the method to be employed in fitting a student to determine by the examination of a stained smear of blood approximately the number of leucocytes per cubic millimeter present.

Second Year Studies.

BACTERIOLOGY. - Professor Ernst.

- 1. What conditions must be fulfilled to prove that a suspected microorganism is the cause of an infection?
- 2. How do the bacteria produce their results, and what are the conditions which may modify their pathogenic action?
- 3. How would you prove that a specimen of pus submitted for examination was derived from a gonorrhoeal urethritis?
- 4. Describe a method for separating a mixture of bacteria into pure cultures?

PATHOLOGY. - Professor Councilman.

- 1. Discuss fatty degeneration, taking up the following headings: -
 - (a) Meaning of the term.
 - (b) Source of fat.
 - (c) Mention some of the conditions which produce it.
 - (d) How may it be recognized both by naked eye examination and by the microscope?

- 2. What is fat necrosis? State naked eye and microscopic appearance. Where and under what conditions does it appear?
- 3. What is meant by "dropsy"? What are the three physical conditions which lead to its production?
 - 4 What is leucocytosis? What is its relation to acute inflammation?
 - 5. Thrombi:
 - (a) Appearance?
 - (b) Where most common?
 - (c) Changes they may undergo?
 - (d) General causes?
 - 6. Hypertrophied heart:
 - (a) Weight of heart in grammes in normal adult, male and female?
 - (b) On which side of heart is hypertrophy more common?
 - (c) Causes leading to its production?
 - (d) What changes in the heart will be found in a chronic case of aortic stenosis and insufficiency?
- 7. Give general description of an autopsy on a case of typhoid fever in the second week of the disease.
- 8. Name several ways in which posterior column degeneration may be produced. What is the disorder of function associated with posterior column degeneration?

Write answers to 9 and 10 on separate sheet of paper.

- 9. Mention the parasites and describe that part of their life cycle which may appear on the skin, in the feces, the urine, the sputum and the peripheral circulation.
- 10. In what ways may the pathological effects of the presence of Ascaris, Uncinaria, Taenia echinococcus and Filaria bancrofti express themselves.

[Alternative to 9 or 10.] Describe the anatomy and give the life history of a nematode and a cestode.

HYGIENE. - Professor HARRINGTON.

- 1. A city of 50,000 inhabitants, supplied with water from a polluted river and having a persistently high annual mortality from typhoid fever, installs a sand-filtration plant, and the death-rate due to that disease falls progressively during the succeeding five-year period. In the following year there occurs a sudden outbreak of the disease, and within two weeks 65 cases are reported. Being called upon to ascertain the cause and to take steps to abate the outbreak, what investigations would you make and what precautionary measures would you advise while the same are being carried to a conclusion?
- 2. Mention the conditions which lead to high bacterial multiplication in milk, and state what measures should be adopted to bring about the production of a sanitary milk-supply, having due regard to equitable treatment of both producer and consumer.

What are the inevitable consequences of a disregard of proper sanitary precautions in the production of market milk, and why are they more markedly manifest in mill populations than in purely residential communities?

Mention the classes of indoor occupations which involve such exposures and environmental conditions as to cause them to be dangerous to follow, especially for those with inherited or acquired tendencies to tubercular affections.

Discuss the fallacies involved in attempting to arrange the various occupations in the order of their supposed healthfulness by applying as a measure the death-rates obtaining or the average age at death.

4. Mention a disease the spread of which is beyond question dependent upon soil conditions. State the agency and the manner of spread.

What important differences can you mention in the habits of the species of mosquitoes connected with the spread of yellow fever and malaria?

Third Year Studies.

THERAPEUTICS. - Professor Praff.

- 1. Give in detail the action of lead compounds.
- 2. Action of ergot.
- 3. Action of strychnine.
- 4. Action of atropin and its therapeutical uses.
- 5. Write prescriptions for the following, avoiding abbreviations, and give directions in full to the patient: (1) arsenic; (2) iron; (3) morphine; (4) zinc sulphate; (5) apomorphine.
- 6. State the general indications of treatment in a case of severe acute gastro-enteritis.
- 7. What are the general indications of treatment in a case of acute poisoning?
- 8. How could you reduce the weight of a patient suffering from excessive adiposity? What are the rational principles which have to be observed in a dietetic treatment.

THEORY AND PRACTICE. - Professor Fitz.

- The method of origin and the treatment of the harmful effects of obesity.
- 2. Describe the antipyretic treatment of typhoid fever.
- 3. The diagnosis and treatment of the hook-worm disease.
- State the conditions under which cardiac dropsy may be limited to the peritoneal cavity.
- 5. The symptoms and diagnosis of intrathoracic aneurism.
- 6. The differential diagnosis between abscess of the lung and pyopneumothorax communicating with the bronchi.
- 7. The advantages and disadvantages of gastroenterostomy.
- 8. State the circumstances under which exploratory incision is to be preferred to paracentesis in the treatment of fluid in the abdominal cavity.
- 9. The differential diagnosis of the causes of intestinal obstruction.
- 10. The diagnosis and treatment of tubercular disease of the genitourinary tract.

CLINICAL MEDICINE. - Professor SHATTUCK.

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive, though correct, diagnosis. Write out all prescriptions in full.]

Case 1. — A retired merchant seventy-two years old is seen February 21. His mother died of "liver disease," the nature of which is unknown. Although always a good liver he had never indulged in excess of any kind unless in the matter of work and outdoor exercise, and his general health had been excellent up to ten years ago, when he suffered for a time from shortness of breath and swelling of his feet and legs. He rapidly recovered under treatment, but a year or two later after a hard row against a head wind he had an attack of great dyspnoca accompanied by cyanosis and cough with the expectoration of frothy mucus. He soon resumed his usual method of life, and had no symptoms other than very slight dyspnoea on exertion up to about two years ago. Since then he has had occasional attacks of diarrhoea, which usually vielded promptly to mild astringents. Last December after a a hearty dinner he went to bed feeling nauseated and with considerable abdominal discomfort, which rapidly increased until it amounted to pain. He vomited about 2 A.M., and was almost entirely relieved, though he complained of lameness in the morning. These attacks have been repeated every week or two, and have always followed an indiscretion in diet, but not every indiscretion was followed by an attack. The pain was always localized in the right side of the abdomen, particularly in the upper quadrant. It did not radiate in any especial direction, and was never followed by jaundice. For about two weeks it has recurred almost every day, and the feeling of lameness over the abdomen has been almost constant. Small doses of morphia have been occasionally required. The bowels have been kept open by laxatives. The stools appear normal. His appetite has failed, and he is beginning to be a little demoralized from the constant discomfort. He has lost a few pounds in weight.

The patient is a stockily built man, of medium height, well nourished, weighing 190 pounds. Color good. Marked arcus senilis. Tongue slightly coated. Peripheral arteries appreciably thickened. Heart's apex in fifth space in nipple line, right border a finger's breadth and a half to right of parasternal line. A systolic murmur is heard at the apex, transmitted slightly toward the axilla. The second sound at the base is short and sharp. The liver dulness begins in the fifth interspace in the nipple line, and extends fully two fingers' breadth below the costal margin. So far as can be made out through the thick abdominal walls the edge is sharp and the surface smooth. Extending below the edge, about in the nipple line, a rounded, somewhat clastic, and decidedly tender tumor can be made out, which seems about an inch and a half to two inches in diameter. It moves with the liver during respiration. The pulse, 74, intermits occasionally, but is not otherwise noteworthy. Temperature, 98.4°. Urine

negative. Whites, 7000.

Diagnosis? Prognosis? Treatment?

 C_{ASE} 2.—A cigar maker sixty years old is seen February 9. Family history negative. He had typhoid fever thirty years ago, and scarlet fever and measles in childhood. He has used both alcohol and tobacco in excess in early life, but for several years has been very temperate. Increased

micturition at night for several years. For a number of years he has had more or less constant indigestion and occasional dizzy spells, but kept at work at his trade and made little complaint of dyspnoea until about the middle of last December; since then he has suffered constantly from 'asthma," the difficulty in breathing being present even when he was quiet, and greatly interfering with his sleep. He has also had a slight cough with a little white, frothy expectoration. His feet have recently been somewhat swollen at night. Three days ago, after unusual exertion, his dyspnoea became very urgent, his cough increased, and the expectora-

tion became copious and slightly blood-tinged.

The patient, who is a well developed and well nourished man, is in bed propped up by three pillows, and is breathing with difficulty. There is marked evanosis particularly of his face and neck. The superficial veins of the neck are distended and tortuous, but do not fill from below. There is dulness at the bases of both lungs with numerous medium moist râles. The right border of the heart extends a full inch beyond the right sternal border. Its upper border on the left of the sternum is at the upper border of the third rib. The apex is under the sixth rib an inch outside the nipple line. The heart's action is irregular and intermittent. The first sound at the apex is reduplicated, the second part being louder and sharper, and is followed by a short soft systolic murmur. The second pulmonic sound is reduplicated and louder than the aortic. The hepatic dulness begins above at the fifth interspace; the edge of the liver is indistinctly made out two inches below the costal margin. The abdomen is not remarkable; it is everywhere resonant. No general oedema. Slight pitting of both ankles and feet. Pulse,—small, weak, irregular, and intermittent; does not record every heart beat. Temperature, 97.6°. Respiration, 34. Urine, - high colored, acid; sp. gr. 1025. Albumen, slight trace. Sediment contains a rare blood globule, numerous hyaline and fine granular casts with an occasional fat globule adherent.

Diagnosis? Prognosis? Treatment?

Case 3.—A lady forty-seven years old is seen April 24. Her mother died of some lung trouble, probably tubercular. Family history otherwise negative.

She had typhoid fever thirty years ago; nine years ago the glands in her left axilla became enlarged and suppurated, and were removed. During the next two years she underwent three operations for the removal of enlarged glands on both sides of her neck. Pathological examination showed them to be tubercular. After the last operation she gained in flesh and strength, and has since been better than at any time before She had malaria five years ago, and was in bed a week with daily chills and fever. About four weeks ago she began to lose strength and appetite, and to complain of headache and general discomfort. A few days later she developed a severe pain in the back of her neck, which still persists. April S, while unwell, she was taken with a severe pain in the abdomen, particularly on the left side, which was accompanied by nausea. This was relieved after a Seidlitz powder, which produced a diarrhoea which was very troublesome for three or four days. There was nothing noteworthy about the dejections except that they contained considerable mucus. Since then she has been constipated. During the week from April 8th to the 15th her malaise increased; she was occasionally nauseated and felt very feverish toward night. About this time she developed a slight cough which was accompanied by the expectoration of stringy mucus. Nevertheless she kept about, preparing her country house for occupancy, but finally felt so wretched that on the afternoon of April 16 she sent for her family physician who found her temperature 104.5°. The afternoon temperature during the following days has been as follows: 104°, 103°, 102.4°, 102.6°, 101.49, 101.6°, 102.4°, 101.6°. The morning temperature has varied between 98° and 99°. She has had frequent chilly sensations but no distinct chill, and has had a slight nosebleed twice. Physical examination shows a well developed and well nourished woman without marked prostration, whose face and ears are very slightly dusky. The sensorium is free. The scars of her operations are seen in the axilla and on both sides of her neck. The tongue is dry with a moderate white coat. There is very slight dulness over the apex of the left lung above the third rib where the respiratory murmur is somewhat interrupted, suggesting a cogwheel character. Throughout both lungs an occasional squeak is heard on inspiration. Except that the first sound is somewhat impure at the apex, the heart shows nothing abnormal. The abdomen is not remarkable. Two small slightly raised pink spots are seen on its anterior surface which disappear on pressure. The spleen cannot be felt. Otherwise, physical examination is negative. Pulse, 112, of small volume and low tension. Respiration, 16; whites, 7000. A Widal test done three days ago was negative. Urine, acid; sp. gr. 1024; very slight trace of albumen. The sediment shows an occasional hyaline and fine granular cast.

Diagnosis? Prognosis? Treatment?

PEDIATRICS. - Professor ROTCH.

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case and give the differential diagnosis, and the treatment:—

A boy, twenty-six months old, had always been unusually strong and vigorous. He had had a little cold in the head for 2 or 3 days, but had not seemed at all sick. His appetite was rather poor on the 19th and consequently he was not given as much to eat as usual. His bowels moved normally just before going to bed. He was very restless all night and had a high fever. He was given 15 drops of sweet spirits of nitre every hour and was bathed several times. He vomited some large curds of milk during the night. About 8.30 a.m. on the 20th he had a severe convulsion. He was seen just after he came out of it.

Physical Examination. He was conscious but slightly rigid and twitched occasionally. There was marked pallor. There was no rigidity or tenderness in the neck. The membranae tympanorum were normal. The throat was normal and the tongue considerably coated. The pupils were equal and reacted to light. The heart and lungs showed nothing abnormal. The liver and spleen were not palpable. The abdomen was negative. There was no paralysis of the extremities. The knee-jerks were equal and rather feeble. Kernig's sign was absent. The temperature 104 F., the pulse 160, the respiration 60.

The colon was washed out and a considerable amount of well-digested yellow feces obtained. He was given two tablespoonfuls of castor oil. Bromide and chloral were ordered to be given if necessary for the nervous symptoms and sponging with alcohol and water if the temperature was high.

He had no more convulsions, but twitched a little at times and was given several doses of bromide and chloral. The bowels moved three times as the result of the castor oil, the movements being loose, vellow, and containing a little undigested food. The temperature continued high. He coughed frequently and seemed to be in pain. There was no vomiting,

but he took very little food.

The next morning he looked and acted sick. He was restless and irriable. There was marked pallor with a slight tinge of cyanosis about the lips. The respiration was rapid and at times grunting. The alae nasi moved with respiration. The throat and ears showed nothing abnormal. The tongue was moderately coated. The heart and lungs showed nothing abnormal. The abdomen was negative. The liver and spleen were not enlarged. There was no rigidity or paralysis of the extremities. Kernig's sign absent. The knee-jerks were equal and normal. The temperature was 104.6 F.; the pulse 140; the respiration 60.

The leucocytes numbered 24,000.

2. An infant of six months has been given since birth a mixture of equal parts of milk and water with a level tablespoonful of milk sugar to each twenty ounces of the mixture. He is getting at present four ounces at a feeding, every 2½ hours, eight times a day. He has gained 3 pounds since birth, is very constipated, cries most of the day, especially at night, and vomits occasionally only.

(a) What percentages of fat, sugar, and proteids has the infant received?

- (b) Criticize the feeding and state the probable causes of the symptoms mentioned. (c) Write for an appropriate modification of milk from the laboratory
- to meet the indications for feeding. 3. What is the significance in infancy of a clay colored movement with
- mucus; of a dry, white movement; of a small movement composed entirely of mucus and blood; of a brown movement; of a black movement?
- 4. In what respects does rheumatic fever in young children differ from that disease in later life?
- 5. What clinical types of diarrhoea are classified as non-infectious and what as infectious in infancy and early childhood?
- 6. Describe Koplik's sign. What is its significance? How early does it appear in the disease?

SURGERY. - Professor WARREN.

- 1. What is the difference between the deformities of infantile paralysis and spastic paralysis?
- 2. Give the local signs and general symptoms of gangrene.
- 3. Give the treatment of a fracture of the lower end of the humerus.
- 4. Give the methods of treatment of aneurisms.
- 5. Symptoms, diagnosis, and treatment of fistula in ano.
- 6. Give the differential diagnosis of appendicitis.
- 7. Symptoms of an acute pancreatitis.
- 8. Give the diagnosis and treatment of a strangulated inguinal hernia.

- Give the symptoms and treatment of hemorrhage of the middle meningeal artery.
- 10. Give the causes and treatment of apnea.

CLINICAL SURGERY. - Professor Burrell.

1. Mrs. A., aged 36, was operated on for acute appendicitis many years

ago by drainage of an abscess high up in right abdomen.

The present trouble began in January, 1906, with cessation of the menses, which up to that time had been regular. In March a slight flow occurred, and an irregular dribbling of blood. In the latter part of March, while in town, the patient was seized with violent pain in the abdomen, and was with difficulty brought home. A second attack of pain soon followed, and in the next three weeks there were several. At the end of three weeks the physician, after an unusually severe attack, was unable to make out anything by physical examination of the abdomen. There was no distention, no dulness, no faintness, no vomiting. The temperature and pulse were normal. The pain was so severe that much anxiety was caused, and it seemed wise to examine under ether. A fluctuating mass was found in the pelvis to right of uterus. Both breasts were enlarged and painful.

What is the diagnosis? What would you advise? What is the prognosis

with and what without operation?

[In this and in the next two cases answer each question as briefly as possible.]

2. Mr. F. B., aged 56, of sedentary habits, had been sick two weeks. The trouble began with severe general pain in the abdomen, with no localizing symptoms. The bowels were constipated. Tenderness was general. The pain required several doses of morphia for its control. After a few days the bowels moved freely and the pain subsided. Before this movement the bowels were much distended. During the second week of illness there was a rise in temperature, with chills. The right hypochondrium and epigastrium became tender and prominent. The tenderness and prominence gradually increased, until there was softness and fluctuation in the middle of the prominent epigastrium. The family history was good. There had been no previous sickness; there had been no gastric disturbances. There had been no previous attacks like the present.

Physical Examination. — The patient's general appearance was not good. He was pale and pasty in the face. The pulse was 100+ and the temperature 102°. In the epigastrium there was a marked prominence which fluctuated and was markedly tympanitic. Under ether the tumor was incised in the median line. A burst of gas followed, with pus. The odor was extremely foul and fecal. The base of the abscess cavity was the liver, and the cavity extended as far as the finger could reach up under the diaphragm. The walls of the abscess cavity were covered with

gravish-white exudate, and the whole bled easily.

Mention the possible sources of this localized infection. Would you have sought to remedy this source, or would you have contented yourself with drainage?

3. Leon K., aged 12. Seen in consultation Saturday, April 6, 1906. This vigorous boy eighteen days ago cut his left ankle with an axe, opening the ankle joint and the tarsus. There was much bleeding, and he was two miles from home. The ankle was bound up in an old tablecloth, and he

was hurried home. The attending physician, a skilful man of long experience, cleaned the wound as thoroughly as possible, and did it up in antiseptic gauze. The joint was, however, so badly infected at the time of the accident that it suppurated extensively. The highest temperature was 102°; the pulse, 100. The ankle joint was suppurating, the smaller synovial cavities were full of pus. Drainage was inadequate. The pain and tenderness were excessive. The consulting surgeon advised and immediately made better drainage, washing out thoroughly the affected joint. The process had, however, so disorganized the joint that one could get, on manipulation, the peculiar "clucking" sensation of abnormal mobility and prolonged suppuration. On Sunday, the day after the operation, the temperature rose to 104°; pulse, 160. The leuccocytes were 35,000. It was thought that this was a temporary absorption from the freshly cut surfaces. On Monday the temperature was 104°; pulse, 144. There were no chills. The abdomen was negative. There was no spreading up the leg. The foot and ankle looked no worse than before the operation. The patient was bright; he looked well. The constitutional absorption was, however, alarming. As a result of what was done the boy is now convalescing rapidly.

What would you have done - resect, extend drainage, or amputate?

4. The patient, Miss E. McG., is a hospital nurse twenty-four years of age. Her father and mother are alive and well. One brother died five years ago of pulmonary tuberculosis. One sister had an abdominal tumor, probably a fibroid, successfully removed by operation. One aunt died of cancer of the breast.

Up to the present illness she has always been an extremely healthy

woman. She has never been sick before, even in childhood.

About six months ago she first noticed a small hard nodule in the outer portion of the right breast. This was painless and attracted little attention, but gradually increased in size. In the last six weeks the increase in

size has been more rapid than previously.

About four weeks ago she noticed a small firm lump low down in the abdomen, which has since then grown considerably larger. It is slightly tender when she presses on it, but not otherwise painful. From the time that this mass was noticed she began to lose flesh and strength. Yesterday she became unable to work. Her appetite has been poor, but she has had no pain or distress in her stomach. There has been no nausea or vomiting. She has noticed a slight dry cough and shortness of breath for the past few days. She has had no chills, feverishness, or night sweats. Menses have been regular.

Examination shows her to be a tall pale woman, somewhat thin, with evident dyspnoea and weakness. Her temperature is 100.6°; her pulse,

146; and her respiration, 30 per minute.

In the outer lower quadrant of the right breast there is a hard tumor the size of an egg, adherent to the skin, and projecting above the surface of the remainder of the breast. There are palpable glands in both axillae. The heart is normal in size and position: its action is rapid and somewhat weak, but there are no murmurs. In the back there is dulness over the bases of both lungs up to the angles of the scapulae, with much diminished breathing and numerous fine moist râles in the areas of dulness. The abdomen is large, prominent, especially in the lower portion, where there is felt a hard irregular tumor extending from the pubes midway to the umbilieus and to both sides of the median line almost to the iliac spines.

This tumor is not tender, and is only slightly movable. Over it the percussion note is dull, but elsewhere the whole abdomen is tympanitic, even in the flanks, and the liver and spleen are not enlarged. There is no oedema of the feet. The haemoglobin is 65%. White count is 12,800. Urine is negative.

Discuss as thoroughly as time permits the diagnosis and prognosis in this case. Whether you advise for or against operation, give your reasons.

isons.

OBSTETRICS. - Professor W. L. RICHARDSON.

- 1. Hyperemesis gravidarum: aetiology and treatment?
- 2. Differential diagnosis between threatened abortion, hydatidiform mole, and extra-uterine pregnancy?
- 3. Discuss the use of the vaginal douche; antepartum, postpartum, and in the puerperium.
- 4. A primipara, at the end of the seventh month, complains of more or less constant and severe pain over the right sacro-iliac articulation. She walks with difficulty. Local examination discloses nothing. Probable diagnosis, prognosis, and treatment?
- 5. State concisely the normal mechanism of labor in breech presentation.
 - 6. The etiology, prevention, and treatment of puerperal cystitis?
- 7. Discuss chill in the puerperium, with especial reference to its day of occurrence.
- 8. In the case of a multipara, after seven hours' labor, the first vaginal examination reveals a presentation of both feet, S. L. A.; below the feet, just within the vulva, is a loop of the funis pulsating feebly. The os uteri is fully dilatable; the breech is above the brim of the pelvis; the pains are infrequent and of only moderate strength; the mother's condition is excellent. How would you proceed with the case?
- 9. Mrs. A. Thirty-three. Third pregnancy. Seen for the first time in consultation about a week before the calculated date of labor. First pregnancy was terminated by a difficult high forceps operation after a long labor, a living child being extracted. Second pregnancy, also terminated by a difficult high forceps operation, the child being dead. Both the children were said to be well above average size, but no definite weights were given.

Abdominal examination shows the presence of a large child. Head presentation, without sign of engagement. Position O.D.P. Pelvic measurements as follows: Inter-spinal, 25 cm.; inter-cristal, 28 cm.; external conjugate, 20 cm.; diagonal conjugate, 11½ cm. Discuss treatment.

10. Causes, symptoms, and treatment of internal concealed haemorrhage?

GYNAECOLOGY. - Professor Green.

- 1. Pruritus vulvae: aetiology and treatment.
- 2. Having replaced r retroverted uterus to its normal position and fitted a pessary, what directions would you give the patient? What subsequent care and observation should be given by the physician to such a case?

- 3. Laceration of the cervix uteri, with eversion, erosion, and cystic degeneration: describe the preliminary treatment you would give preparatory to trachelorrhaphy.
- 4. Give the general principles on which chronic endometritis should be treated, according to its type.
- 5. By what routes may infection in the genital tract reach the parametrium, and in what ways may nature arrest and limit the process? What may be the pathological results, if the infection is not arrested?
- 6. What is the usual regional classification of myomatous tumors of the uterus? And what are the chief symptoms of these new growths according to their location?

DERMATOLOGY .- Asst. Professor Bowen.

- Describe a typical case of tinea tonsurans and give directions for treatment.
- 2. General principles of treatment in eczema.
- 3. With what other affections may scabies be confounded, and what are its chief characteristics and its treatment?
- 4. Epithelioma of the skin: its characteristics and its course.
- 5. Treatment of acne vulgaris.

SYPHILIS. - Dr. Post.

- 1. What would lead you to think a lesion upon the tongue a primary lesion of syphilis?
- 2. What characteristics will allow you to differentiate between an early and a recurrent papular syphilide?
- 3. What is the condition of the lymphatic glands during the primary stage of syphilis [i.e. before the appearance of secondary manifestations] and what is their value in diagnosis?
- 4. What peculiarities would lead you to suspect congenital syphilis in a young person between 10 and 15 years of age?
 - 5. What measures do you recommend for the control of syphilis?

NEUROLOGY. - Professor PUTNAM.

- 1. What conditions in the nervous system give rise to a spastic gait? Name some disease in which this sign is present.
- 2. Of what value is the reaction of degeneration?
- 3. A man, thirty-five years of age, gave a history of having suffered for four weeks from severe abdominal pain for relief of which he had applied to several physicians without success.

Various diagnoses had been made and operation for appendicitis had

been advised.

During the fourth week his legs began to grow weak and he had difficulty in retaining his urine. When seen a week later he was found to have almost completely lost the power of motion in his legs and feet, while sensibility to touch and pricking was markedly diminished everywhere below the umbilicus. The knee-jerks were exaggerated on both sides, and ankle-clonus and Babinski's reflex were present on both sides. There was incontinence of urine. The pupils were normal.

The patient did not use alcohol and denied having had venereal disease.

Diagnosis and treatment.

PSYCHIATRY. - Dr. Cowles.

1. Describe the action of the "stream of consciousness" and the attention with respect to its "inhibiting or exciting" influence.

2. What symptoms in the phases of depressive-maniacal insanity can be referred to changes in physiological irritability and organic sensations?

3. Describe the "Involution Psychoses" and their differential characteristics with reference to the "non-deteriorating psychoses."

4. Case. — A woman; single. History negative as to neuropathic tendency; normal as a child, left school at 14, and since kept house for

family; quiet in disposition with domestic tastes.

In April, 1899, aged 28 years, complained of "neuralgia" in face; began to sleep poorly, and to talk much about religion and the doings of the priests; more constant in attendance at church, and in June its frequency and unusual hours interfered with household duties. Throughout summer complained of headaches; said her head "whirled and people whirled" about her; insomnia continued. In September became slovenly in appearance and habits, objected to bathing, etc., lost interest in her duties; talked much about priests; became indolent, crying at times, and sister had to assume control of housekeeping. Being forbidden, by her father, to go to church and blaming him for the hardship to her, she imputed to the priests the responsibility for this and the trouble of her mind; she spoke of this as a curse the priests had put upon her. Any picture or story she might read she said had reference to her and came from the priests. She was not very restless at this time, but wandered about rather aimlessly, was quiet at night; later spoke of hearing voices that told her to go to church. Toward spring of 1900, though appetite and sleep improved and she cried less, she was still slack in appearance and habits. Her talk was almost wholly of the priests and the "voices" which she wanted stopped; sometimes remaining silent for half a day. After this she continued to speak of "terrible sights" and "terrible sounds"; and of being "under a ban"; said she would not work until the "power" or "curse" was removed. If engaged in a task was liable to stop suddenly saying that the "Divine Power" would not let her do more. Always well oriented; menstruation regular; weight had decreased, 150 (normal) to 130 pounds on admission to hospital.

In Hospital; admitted May, 1900. Physical examination practically negative. General behavior at times strikingly childish; twisted about, snapped her fingers, clapped her hands, threw her legs about regardless of appearance, pulled at her clothes, etc.; walked in an awkward clumsy manner; spoke with a high-pitched, peculiar, peevish expression,—at times smiling,—again suddenly beginning to cry,—and again singing or

whistling. Usually occupied herself with nothing, lounging about, disposed to lie in bed till late in the day, and to stay in her room associating little with other patients. Her talk to nurse was mostly of the priests,—the voices,—her desire to go home; on one occasion soiled the bed At night sleeping 5 or 6 hours, wakeful and restless, walking about room and sometimes pounding on wall, asking nurse for a priest, etc. She recognized her behavior as unnatural, and said: "I can't help it,"—"I feel foolish,"—"I do it for fun." At times she would assert that she was

well; again would say: "I wish I could get out of it."

Her ideas were rather vague and her attempts to explain them were feeble and scattering. In this disjointed way she spoke of being "under a ban," or a "curse"; "I'd be all right and act properly if it wasn't for these voices"; also of "Divine Power," — "power of demons." Once said, "The Electrical Company has got me"; again, "I don't know what it all means"; at another time said it was "The Fathers" who were talking, — "They talk everything — from above — rehearsing everything good and bad." Visual hallucinations were indicated by her saying, "I have seen beautiful sights; I have seen the Father beside me." She showed no consistent resistiveness nor muscular negativism; always well oriented, no marked memory defect. There was increase of nervous disturbance at the menstrual period, — only some increase of listlessness.

After two months in hospital she was discharged, "not improved."

Give diagnosis stating characteristic symptoms, and prognosis.

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. Iritis.
- 2. Trachoma.
- 3. Give the methods of examination which should be used in a case of convergent strabismus in a child six years of age, the reasons for them, and proper treatment for the conditions found.
- 4. What should be noted in the examination of the eyes of school children?
 - 5. What are the characteristics of the field of vision in
 - (a) Toxic amblyopia from tobacco and alcohol?

(b) Retinitis pigmentosa?

(c) Hysteria?

OTOLOGY. - Professor BLAKE.

- 1. Describe the tympanic cavity.
- 2. What muscular movements favor the opening of the Eustachian tube?
- 3. Symptoms and treatment of hydrops ex vacuo.
- 4. Symptoms of labarynthine haemorrhage.
- 5. Pathology of acute suppurative middle ear disease.
- 6. Describe the simple mastoid operation.

LARYNGOLOGY. -- Asst. Professor Coolings.

- 1. Causes, seat, and treatment of nosebleed.
- 2. Abscess of the nasal septum: symptoms, differential diagnosis, treatment.
- 3. How would you treat haemorrhage of the tonsil, following tonsillotomy?
- 4. Retro-pharyngeal abscess: causes, symptoms, diagnosis, treatment.
- 5. Describe the Killian method of examination of the posterior wall of the larynx. What are its advantages?
- 6. What laryngeal appearances would lead you to consider a case one of malignant disease of the larynx rather than tuberculosis?

THE MEDICAL SCHOOL.

Courses for Graduates.

1905-06.*

Abbott, Harlan Page, M.D. 1889,

Arms, Burdett Loomis, M.D. (Univ. of Vermont)
1905,

Baldwin, Charles Hume, A.B. (Williams Coll.) 1900, M.D. (Harvard Med. Sch.) 1904,

Barre, Joseph Aladin, M.D. (Coll. of Phys. and Surg., Baltimore) 1892,

Bowditch, Henry Ingersoll, A.B. 1898, M.D. 1902, Brown, William Mortimer, M.D. (Med. Dept. Univ.

of the City of New York) 1889,

Burt. Edward Walter, M.D. (Boston Univ. Sch. of Med.) 1900,

Carbone, John, M.D. (Univ. of Naples) 1892,

Carey, Francis Arthur, M.D. (Baltimore Med. Coll.) 1905,

Cobb, Charles Duane, M.D. (St. Louis Univ.) 1904,

Colcord, Amos Watson, M.D. (Coll. of Phys. and Surg., Baltimore) 1893,

Cox, Joseph Ambrose, M.D. (Albany Med. Coll.) 1901,

Curry, Edmund Farnham, M.D. 1896,

Daly, Timothy Joseph, M.D. 1897,

Dearborn, Luther Gould, Jr., A.B. (*Tufts Coll.*) 1900, M.D. (*ibid.*) 1904,

DeBlois, Seth, M.D. (Univ. of Maryland) 1905, Doull, Arthur Ernest, M.D.C.M. (McGill Univ.) 1900.

Drier, Ezra Newton, M.D.C.M. (McGill Univ.) 1899,

Elder, Fred Orestes, M.D. (Jefferson Med. Coll.) 1905,

Emerson, Francis Patten, M.D. (Coll. of Phys. and Surg., New York) 1886, Providence, R.I.

Brookline.

Boston.

Fall River.
Boston.

Rochester, N. Y.

Westport.
Boston.

Taunton.

Neponset.

Clairton, Pa.

Albany, N.Y.
Fall River.
Lawrence.

West Derry, N.H. Newport, R.I.

Halifax, N.S.

Vancouver, B.C.

Lynn.

Roxbury.

^{*} Entering after the issue of the Catalogue of 1905-06.

Fleming, Peter Joseph, M.D. (Western Univ. of Ontario) 1902,

Fuller, Charles Benjamin, A.B. (Colby Coll.) 1896, M.D. (Harvard Med. Sch.) 1900,

Fyshe, James Carlyle, A.B. (Harvard Univ.) 1899, M.D.C.M. (McGill Univ.) 1904,

Gardner, George Warren, A.B. (*Brown Univ.*) 1894, M.D. (*Harvard Med. Sch.*) 1900,

Grant, David, M.D. (Univ. Med. Coll. City of New York) 1888,

Graves, William Phillips, A.B. (Yale Univ.) 1891, M.D. (Harvard Med. Sch.) 1899,

Hall, Gardner Wells, A.B. (Harvard Univ.) 1898, M.D. (Johns Hopkins Med. Sch.) 1901,

Hamilton, Gordon Battelle, M.D. (Med. Dept. Univ. of the South) 1905,

Hammond, Philip, M.D. 1894,

Haskell, Pliny Fisk, M.D. (American Med. Missionary Coll., Chicago) 1902,

Hitchcock, Harry Eastman, M.D. (Bowdoin Coll.) 1898,

Hyde, Frederick Tanquary, M.D. 1898,

Irving, Harry Washington, M.D. (Tufts Med. Sch.) 1905,

Jack, Frederick Lafayette, m.D. 1884,

Jenckes, Frank Herbert, M.D. (Univ. Med. Coll. City of New York) 1887,

Jillson, Franklin Campbell, M.D. 1886,

Knowles, Robert Keneborough Black, A.B. (Acadia Coll.) 1897, M.D. (Harvard Med. Sch.) 1902,

Knowles, William Fletcher, M.D. 1885,

Lewis, John Marye, M.D. (*Univ. of Virginia*) 1905.

Lindsey, John Hathaway, A.B. (Brown Univ.) 1892, M.D. (Univ. of Penn.) 1899,

Lyford, Chauncey Allan, s.B. (Worcester Polytechnic Inst.) 1903,

McCauley, James Douthard, M.D. (*Illinois Med. Sch.*) 1902,

McDonald, Samuel James, A.B. 1897, M.D. 1901, McLaughlin, Henry Valentine, L.R.C.S. (Dublin) 1884, L.R.C.S. (Edinburgh) 1884, Roxbury.

Waltham.

Montreal, Can.

Providence, R.I.

Providence, R.I.

Boston.

Boston.

San Francisco, Cal. Boston.

Keene, Texas.

Portland, Me. Winchester, Va.

Yonkers, N. Y. Boston.

Woonsocket, R.I. W. Roxbury.

Gloucester.
Boston.

Manassas, Va.

Fall River.

Worcester.

Cambridge. Brighton.

Brookline.

Miller, Charles Hermann, A.B. (Acadia Univ.) 1887, M.D. (N. Y. Univ. Med. Coll.) 1891,

Mitcheil, John Joseph, M.D. 1902,

Morse, Charles Wheeler, M.D. (Boston Univ. Sch. of Med.) 1889,

Perry, William Henry, M.D. (Chicago Homeo. Med. Coll.) 1897, A.B. (Ohio Northern Univ.) 1904,

Rankin, Watson Smith, M.D. (Univ. of Maryland) 1901,

Rollins, Edwin Theodore, M.D. 1902,

Sikorsky, Vladimir Nicholas, M.D. (Moscow Imperial Univ.) 1895,

Simmons, Moses Rogers, M.D. 1882,

Spain, Robert Thomas, M.D. (Univ. of Illinois Coll. of Phys. and Surg.) 1900,

Stetson, Halbert Greenleaf, M.D. (Coll. of Phys. and Surg., Baltimore) 1895,

Stevens, Harold Elmer Ellsworth, A.B. (Bates Coll.) 1901, M.D. (Harvard Med. Sch.) 1906,

Sukeris, Cosmos Jordan, A.B. (Anatolia Coll., Turkey) 1901, M.D. (Baltimore Med. Coll.) 1905,

Tileston, Wilder, A.B. 1895, M.D. 1899, Truesdale, Philomene Edwards, M.D. 1898,

Welborn, James York, M.D. (Marion Sims Med. Coll.) 1899,

White, Leon Edward, A.B. (Dartmouth Coll.) 1890, M.D. (ibid.) 1893,

Woods, Jarvis Belcher, M.D. (Dartmouth Med. Coll.) 1895,

Wormelle, Charles Burton, M.D. 1898,

1906-07.

Bilderback, Joseph Brown, M.D. (Univ. of Oregon) 1905,

Bolt, Richard Arthur, A.B. (Univ. of Mich.) 1904, M.D. (ibid.) 1906,

Boothby, Walter Meredith, A.B. 1902, M.D. 1906, Bowditch, Henry Ingersoll, A.B. 1898, M.D. 1902, Campbell, Edward, M.D. (Coll. of Phys. and

Surg., Baltimore) 1899, Chase, Walter Lincoln, Ph.B. (Brown Univ.) 1892, M.D. (Univ. of Vermont) 1899, Dorchester.
East Boston.

Salem.

Van Wert, Ohio.

Wake Forest, N.C. Jamaica Plain.

Salem, N.H. Wollaston.

Des Moines, Ia.

Greenfield.

Lewiston, Me.

Smyrna, Turkey. Boston. Fall River.

Evansville, Ind.

Boston.

Bangor, Me. Boston.

Portland, Ore.

St. Louis, Mo. Boston.

Boston.

Providence, R. I.

Newtonville.

Chester, Hyman, M.D. (Maryland Med. Coll.) 1900,

Clark, Ralph Harrison, A.B. (Bowdoin Coll.) 1897, M.D. (Univ. of Louisville) 1900,

French, Charles Ephraim, M.D. (Univ. of Maryland) 1893,

Goodall, Harry Winfred, A.B. (Dartmouth Coll.) 1898, M.D. (Harvard Med. Sch.) 1902,

Gray, John Eugene, M.D. (Med. Sch. of Maine) 1896,

Greene, Joseph Berry, A.M. (Univ. of Alabama) 1891, M.D. (Univ. of Virginia) 1893,

Jones, Everett, M.D. (Boston Univ. Sch. of Med.) 1898,

Kenney, Stephen Aloysius, s.B. (Villanova Coll.) 1894, A.B. (ibid.) 1895, M.D. (Coll. of Phys. and Surg., Baltimore) 1899,

LeGro, Lester Burnside, M.D. (Baltimore Med. Coll.) 1905,

Merrill, William Howe, M.D. (Med. Sch. of Maine) 1888.

Procter, Percy Clement, M.D. 1894,

Scudder, Charles Locke, A.B. (Yale Univ.) 1882, PH.B. (ibid.) 1883, M.D. (Harvard Med. Sch.) 1888,

Stockwell, Herbert Emmons, M.D. (Univ. of Vermont) 1897,

Ward, Frederick Spalding, s.B. (Dartmouth Coll.) 1892, M.D. (ibid.) 1895,

Wheelock, Frank Robert, M.D. 1904,

Wood, Harold Abbott, M.D. (Tufts Med. Sch.) 1906.

FOURTH CLASS.

Allen, Fred Harold, A.B. (Amherst Coll.) 1902, Ashley, Robert Warren, A.B. (Univ. of Colorado) 1904.

Ayer, James Bourne, Jr., A.B. 1903,

Barnum, Francis Goodell, A.B. (Amherst Coll.) 1901,

Blackstone, Alfred Varney, Ph.B. (Brown Univ.) 1903,

Blanchard, Howard Parker, A.B. (Brown Univ.) 1901,

Providence, R.I.

Limerick, Me.

Lowell.

Boston.

Freeport, Me.

Birmingham, Ala.

Brookline.

Valley Falls, R. I.

Haverhill.

Lawrence.
Gloucester.

Boston.

Stockbridge.

Springfield.
Scranton, Pa.

Brockton.

Holyoke.

Ouray, Colo.
Boston.

Boston.

Bridgewater.

Boston.

Brant, Austin Trafton, A.B. (Boston Univ.) 1904, Brown, Lloyd Thornton, A.B. 1903,

Bryant, John, Jr., A.B. 1903,

Cady, Frederic Benjamin Mooers, A.B. 1903,

Carr, Arthur Wyman, A.B. (Williams Coll.) 1902, A.M. (ibid.) 1903,

Chase, Charles Otis, A.B. (Brown Univ.) 1903, Congdon, Russell Thompson, A.B. (Ripon Coll.) 1903,

Cutter, Irving Taylor, A.B. 1903,

Dailey, Michael Andrew, A.B. (Dartmouth Coll.) 1904,

Day, Charles Orrin, Jr., A.B. (Yale Univ.) 1903, Devaney, Patrick Aloysius, A.B. (Boston Coll.) 1903.

Draper, Edwin Lyon, A.B. (Univ. of Illinois) 1902,

English, Martin Joseph, A.B. (Holy Cross Coll.) 1903,

Farnsworth, George Bourne, A.B. (Bowdoin Coll.) 1903,

Fraser, Archibald McKay, A.B. (St. Francis Xavier's Coll.) 1903,

Geary, Cornelius Edward, A.B. (Holy Cross Coll.) 1903,

Gregg, Donald, A.B. 1902,

Harmer, Torr Wagner, A.B. 1903,

Heath, Charles Pliny, A.B. 1903,

Higginbotham, Fred Augustus, s.B. (Trinity Coll.) 1902,

Hill, Lawrence Richardson, B.L. (Dartmouth Coll.) 1902,

Hunt, Albert Foster, Ph.B. (Brown Univ.) 1899, Huntington, James Lincoln, A.B. (Dartmouth Coll.) 1902,

Janowsky, William, Ph.B. (Univ. of Rochester) 1995,

Leake, James Payton, A.B. 1903,

Lothrop, Oliver Ames, A.B. 1903,

McDonald, Charles Anthony, Ph.B. (Brown Univ.) 1903,

Mathewson, Earl Jerome, A.B. (Brown Univ.) 1903,

May, Benjamin Foreman, A.B. 1903,

Newtonville.

Worcester.

Boston.

Cambridge.

Ashby.

Haverhill.

Ripon, Wis. Charlestown.

No. Easton.

And over.

Waltham.

Albany, N. Y.

Worcester.

Boston.

E. Weymouth.

Leominster.

Colorado Springs, Colo.

Somerville.

Wakefield.

Waltham.

Concord, N. H.

Reading.

Leicester.

Rochester, N.Y.

W. Roxbury.

Boston.

Providence, R. I.

Central Falls, R. I.

Albany, N.Y.

1903.

Mudge, Otis Pope, A.B. (Dartmouth Coll.) 1903, Peabody, Francis Weld, A.B. 1903, Perry, Sherman, A.B. (Colby Coll.) 1901, Phipps, Cadis, A.B. 1903, Pratt, Mason Ross, A.B. 1904, Reed, Lawrence Bradford, A.B. 1903, Rice, John Evarts, A.B. (Boston Univ.) 1903, Richards, Charles Maynard, A.B. (Leland Stanford Jr. Univ.) 1903, Riley, Augustus, A.B. (Oberlin Coll.) 1903, Sadler, Roy Angelo, A.B. 1904, Shaughnessy, Michael James, A.B. (Bowdoin Coll.) 1903

Coll.) 1903, Sheahan, George Maurice, A.B. 1902, Sidis, Boris, A.B. 1894, A.M. 1895, PH.D. 1897, Smith, Richard Mason, A.B. (Williams Coll.)

Sobotky, Irving, s.B. (Amherst Coll.) 1903,
Spooner, Lesley Hinckley, A.B. 1903,
Stanwood, Frederic Arthur, A.B. (Bowdoin Coll.) 1902,

Sturtevant, Roy Eliot, A.B. 1901, s.B. 1902, Supple, Edward Augustine, A.B. (Boston Coll.) 1903,

Swan, Lawrence Clarke, A.B. (Dartmouth Coll.) 1903,

Waddell, Charles Walter, A.B. (West Virginia Univ.) 1900,

Walker, Irving James, A.B. 1903,

Welker, Leo Edward, Ph.B. (Iowa Coll.) 1903,

Riley, Ala. Milford.

San José, Cal.

Brockton. Quincy. Brookline.

Danvers.

Boston.

Cambridge.

Templeton.

Brockton.

Worcester.

Camden, Me.

E. Northfield. Northampton. Hingham.

Wellesley. Roxbury.

Holliston.

Stoughton.

Brandonville, W. Va. Malden. Colfax, Ia.

THIRD CLASS.

Adler, Howard Felix, s.B. (Univ. of California) 1905,

Bernstein, Harry Saul, A.B. 1904,

Black, Edward Joseph, Ph.B. (Brown Univ.) 1904, Providence, R.I.

Bond, Earl Danford, A.B. 1900,

Booth, Ernest Lazarus, A.B. 1905 (1904),

Buxton, Bertram Harrington, A.B. (Brown Univ.) 1904,

Cahill, John William, A.B. (Holy Cross Coll.) 1903,

Chase, Heman Baker, s.B. (Amherst Coll.) 1904,

San Francisco, Cal. Roxbury. Providence, R.I. St. Paul, Minn. E. Boston.

Providence, R.I.

Worcester.
Hyannis.

Creeley, Oscar Slade, s.B. (Tufts Coll.) 1903, Curtin, John Joseph, A.B. 1905,

Denning, Frederic Joseph, A.B. 1905,

Eveleth, Samuel Chester, A.B. (Amherst Coll.) 1904.

FitzSimmons, Henry Joseph, A.B. 1903,

Gallison, James Murry, A.B. (Brown Univ.) 1904, Grav, Edward John, s.B. (St. Joseph's Univ.) 1904,

Hall, Robert Granville, s.B. 1905,

Hartshorne, Isaac, A.B. (Amherst Coll.) 1904,

Hennelly, Thomas Patrick, A.B. (Tufts Coll.) 1904, Waltham.

Hersey, Harold Waters, s.B. 1904,

Hildreth, Robert Dudley, s.B. (Amherst Coll.) 1904.

Hiltner, Walter Garfield, s.B. (Nebraska Univ.) 1904.

Holbrook, Charles Albert, A.B. 1900,

Jackson, Delbert Linscott, s.B. (Dartmouth Coll.) . 1904.

James, Reginald Sears, A.B. 1905,

Jantzen, Francis Thomas, A.B. 1905,

Keever, Henry Floyd, A.B. 1905 (1904),

Lane, Clarence Guy, A.B. 1905,

Lawrence, Charles Henry, Jr., A.B. 1903,

Lynch, William Francis, A.B. (Georgetown Univ.) 1904.

McCarthy, Eugene Ambrose, A.B. (Brown Univ.)

McCrudden, Francis Henry, s.B. (Mass. Inst. of Tech.) 1900,

McFarland, William, A.B. (Williams Coll.) 1904, Maguire, John Francis, A.B. (Boston Coll.) 1894,

Marion, James Willis Johnson, A.B. 1904,

Marks, Henry Kovál, A.B. (Leland Stanford Jr. Univ.) 1904,

Moore, Fred Porter, s.B. 1905,

Morrison, Hyman, A.B. 1904,

Morse, George W, Jr., A.B. 1904,

Newburgh, Louis Harry, A.B. 1905 (1904),

Porter, Byron, Jr., s.B. (Univ. of Maine) 1904,

Pratt, Horatio Whittemore, s.B. 1905,

Quigley, Raymond Augustine, s.B. (Mass. Agric. Coll.) 1904.

Ross, Wayland,

Belmont. Waltham.

So. Boston.

Marblehead.

Jamaica Plain.

Franklin.

Salisbury, N.B.

Worcester.

Methuen.

Hingham.

Westfield.

Lincoln, Neb.

Melrose.

Chelsea.

Cambridge.

Lowell.

Schuylkill Haven, Pa.

Woburn.

Boston.

E. Weymouth.

Fall River.

Boston.

Greenwich, N.Y.

Jamaica Plain.

Allston.

San Francisco, Cal.

Cambridge.

Roston.

Clinton.

Cincinnati, O.

Newport, Me.

Grafton.

Brockton.

Boston.

* Entering previous to June, 1901.

Salisbury, Lucius Albert, A.B. (Brown Univ.) 1904,

Sharpe, William James Clyde, A.B. 1904,

Smith, George Gilbert, A.B. 1905,

Swift, John Baker, Jr., A.B. 1904,

Toppan, Roland Lesley, A.B. 1904,

Tuttle, Ralph Weare, s.B. 1905, Walsh, Edmund Francis, A.B. 1904,

West, Frederick Orra, s.B. 1905,

Whittemore, William Stewart, A.B. 1904,

Wilkins, Samuel Henry, Jr., A.B. (Dartmouth Coll.) 1905,

Worthen, Clarence Field, s.B. (*Univ. of Vermont*) 1903,

SECOND CLASS.

Almy, Thomas, A.B. 1905, Bowditch, Harold, A.B. 1905,

†Brickley, William Joseph,

Brigham, Francis Gorham, s.B. (Colgate Univ.) 1905.

Brown, Edward Dunn, A.B. (Univ. of Pennsylvania) 1899,

Bryant, Owen, A.B. 1904,

Burns, Newell Bly, A.B. 1905,

Carlton, Frank Carr, s.B. 1903,

Cornish, Solon Washington, A.B. (Dartmouth Coll.) 1905,

Crothers, Bronson, A.B. 1905,

Crowley, Thomas Francis, A.B. (Boston Coll.) 1903,

Daniels, Ora George, A.B. (Tufts Coll.) 1900,

Davis, Nelson Clifton, s.B. 1905, Dennen, Ralph Waite, A.B. 1905,

†Edwards, Martin Russ,

Fitz, Reginald, A.B. 1906,

Fitzpatrick, Francis Joseph, A.B. (Boston Coll.) 1903,

Fox, Michael Bernard, A.B. (Clark Univ.) 1905,

Garfield, Walter Thompson, s.B. 1906, Ghoreyeb, Albert Alphonso Wood, A.B. (Syrian

Protestant Coll.) 1904,

Giddings, Harold Girard, A.B. 1901,

Sandy Creek, N. Y. Philadelphia, Pa. E. Orange, N.J. Boston.

Malden.

E. Andover, N.H. Boston.

Woburn. Cambridge.

W. Somerville.

Barre, Vt.

Fall River.

Jamaica Plain.

Charlestown.

Flushing, N.Y.

Chicago, Ill.
Cohasset.
Danvers.

Salem.

Carver.
Cambridge.

Holliston. Chelsea.

Providence, R.I. Waltham.

Waltham.
Belleville, Mich.

Boston.

Charlestown.
Worcester.

Cambridge.

Jaffa, Syria. Gardiner, Me.

[†] Admitted by special vote of the Administrative Board.

Greeley, Hugh Payne, A.B. 1906, Lexington. Hall, Reverdy Morriss, Jr., A.B. 1905, Baltimore, Md. Healey, John Joseph, PH.B. (Brown Univ.) 1905, Providence, R.I. Hendricks, Henning Vitalis, s.B. (Worcester Polytechnic Inst.) 1903, Holden. Hepburn, James Joseph, A.B. 1906, Somerville. Hermann, Otto John, A.B. 1906, Roxbury. Heydemann, Martin, Boston. Hinds, Robert Watson, A.B. 1905, Allston. Hogan, Francis James, A.B. (St. Francis Xavier's St. John, N. B. Coll.) 1902, Howard, Arthur Allison, PH.B. (Brown Univ.) 1905. Boston. Hunt, Roscoe Cadwell, A.B. (Carleton Coll.) 1905, Blue Earth, Minn. Ish, George William Stanley, A.B. (Yale Univ.) Little Rock, Ark. 1905, Kelsey, Paul Henry, A.B. 1902, Cambridge. Kennedy, Philip Thomas, A.B. (Trinity Coll.) 1905. Hartford, Conn. Kilgore, Eugene Sterling, s.B. (Univ. of Cali-Oakland, Cal. fornia) 1904, Lamson, Paul Dudley, A.B. 1905, Worcester. Laskey, Edward Philip, s.B. (Dartmouth Coll.) 1904. Dover, N. H. Long, Alfred Dow, Berkeley, Cal. Winchester. Lyons, George Aloysius, A.B. (Boston Coll.) 1905, McCabe, Frank Joseph, A.B. (Dartmouth Coll.) 1905. Randolph. McKenna, Edward Francis, A.B. (Brown Univ.) 1905, Providence, R.I. MacMillan, Andrew Louis, Jr., A.B. (Dartmouth Coll.) 1905, Hanover. Macomber, Donald, A.B. 1906, W. Newton. *Madden, John Joseph, PHARM.D. (Mass. Coll. of Worcester. Pharm.) 1903, *Manotas, Arturo Fabio, Barranguilla, Colombia, S.A. Manton, Walter Williamson, Detroit, Mich. Markolf, Harry Foster, A.B. (Middlebury Coll.) 1904. W. Rutland, Vt. Miller, William Theodore, Jr., A.B. (Western Reserve Univ.) 1905, Cleveland, O.

Pittsfield.

Neill, Mather Humphrey, A.B. (Amherst Coll.)

1905.

[†] Admitted by special vote of the Administrative Board.

†Niles, John Otis Garfield, Boston. Noonan, William Andrew, A.B. 1906, Cambridge. O'Connor, Joseph William, A.B. (Holy Cross Coll.) 1903, Rutland. †O'Donoghue, Edward John, Boston. O'Keeffe, James Vincent, A.B. 1905, Revere. Overlander, John Eliot, PH.B. (Yale Univ.) 1905, Hiawatha, Kan. Parker, Willard Stephen, A.B. 1906, Piqua, O. Patch, Arthur Lionel, A.B. (Brown Univ.) 1904, Stoneham. Pemberton, Frank Arthur, s.B. 1906, Auburndale. Power, George Aloysius, A.B. (Holy Cross Coll.) 1905. Worcester. Preble, William Emerson, A.B. (Bowdoin Coll.) 1898, Litchfield, Me. †Prescott, George Lincoln, Concord. Reid, William Duncan, A.B. 1906, Newton. Rounseville, Wilfred Ellsworth, s.B. (Amherst Coll.) 1905, Attleboro. †Sampson, Edwin Field, Newtonville. Sawyer, Edmund Houghton, s.B. (Univ. of California) 1904, Riverside, Cal. Smith, Harold Heber, A.B. (Leland Stanford Jr. Univ.) 1905, Worcester. Smyth, Duncan Campbell, A.B. (St. Francis Xavier's Coll.) 1905, Port Hood, N.S. Sparrow, Charles Atsatt, A.B. (Amherst Coll.) 1906, Mattapoisett. Stack, John Joseph, A.B. (Holy Cross Coll.) 1902, Roxbury. Steinharter, Edgar Clifford, s.B. (Mass. Inst. of Cincinnati, O. Tech.) 1906, Swaim, Loring Tiffany, A.B. 1905, Cambridge. Tenney, Albert Seward, A.B. (Cornell Univ.) Cambridge. 1905, Tighe, Michael Aloysius, A.B. (Boston Coll.) 1903, Lowell. Titus, Raymond Stanton, A.B. 1905, No. Haverhill, N.H. Tron, Stanley Emanuele (Royal Liceo Gioberti, Turin, Italy), 1903, Torre Pellice, Italy.

Cohasset.

Newport, Ky.

No. Hanover.

Webster, Harrison Briggs, A.B. 1905,

Young, Edward Lorraine, Jr., A.B. 1906,

Brothers' Coll.) 1904,

Wilkiemeyer, Frederick Joseph, A.B. (Christian

[†] Admitted by special vote of the Administrative Board.

FIRST CLASS.

	2 1101 0111001	
	Abbott. John Woodward, A.B. (Bates Coll.) 1905,	Lewiston, Me.
9	Austin, Richard Sisson,	Providence, R. I.
	Bailey, Charles Hervey, A.B. (Brown Univ.) 1903,	Dorchester.
	Baker, Karl Granville, A.B. (Boston Univ.) 1906,	Roxbury.
	Balcom, Kenneth Ira, A.B. (Colgate Univ.) 1905,	Northboro.
	Barkan, Hans, A.B. (Leland Stanford Jr. Univ.)	
	1905,	San Francisco, Cal.
	Bortree, Leo Williams, A.B. (Colorado Coll.)	
	1906, <i>Ca</i>	olorado Springs, Colo.
	Bowers, George Francis Haskell, A.B. 1906,	Clinton.
	Brayton, Howard Wheaton, PH.B. (Brown Univ.)	
	1906,	Providence, R.I.
	Burgess, Alexander Manlius, A.B. (Brown Univ.)	
	1906,	Portland, Me.
	Burwell, Edmund Strudwick, PH.B. (Univ. of No.	
	Carolina) 1906,	Charlotte, N.C.
	Chase, Peter Pineo, Ph.B. (Brown Univ.) 1906,	Hyannis.
	Clark, Frank Robinson, A.B. (Wesleyan Univ.)	
	1900,	Strong, Me.
4	Clarke, Harry Carver,	Providence, R.I.
	Clarke, Oliver Holman, A.B. (Leland Stanford	
	Jr. Univ.) 1906,	Fall River.
	Corcoran, George Bartlett, A.B. (Brown Univ.)	
	1906,	W. Springfield.
	Cunningham, Thomas Edward, Jr., A.B. 1906,	Cambridge.
	Cutler, George David (Lawrence Scientific Sch.	
	Senior),	Cambridge.
	Dages, Oren Newton, A.B. (Princeton Univ.) 1906,	· ·
	Dane, Charles Murphy, A.B. 1906,	Brookline.
	Dane, John Murphy (Lawrence Scientific Sch.	D 77'
	Senior),	Brookline.
	Dansereau, Henry Charles, A.B. (St. Anselm's	372 37 77
	Coll.) 1906,	Nashua, N. H.
	Day, Alexander Alfred, A.B. (Clark Univ.) 1906,	Everett.
	Draper, Warren Fales, A.B. (Amherst Coll.) 1906.	Nouton Highland
	Faison, Yates Wellington, A.B. (Davidson Coll.)	Newton Highlands.
	1906,	Charlotte, N.C.
	Fitch, Chester, A.B. (Williams Coll.) 1906,	Utica, N. Y.
	Titell, Chestel, A.B. (Wittums Cott.) 1900,	Ottou, IV. I.

[†] Admitted by special vote of the Administrative Board.

Milton.

Forbes, Alexander, A.B. 1904, A.M. 1905,

French, Ralph Winward (Harvard Coll. Senior), Fall River. Gamble, James Lander, A.B. (Leland Stanford Jr. Univ.) 1906, Palo Alto, Cal. Gardner, Edwin Daniels, A.B. 1906, Holliston. Gaunt, Frank Peyton, A.B. (Univ. of Missouri) St. Louis, Mo. Gerber, Isaac (Harvard Coll. Senior), Boston. Grady, James Edward, A.B. (Holy Cross Coll.) 1906, Clinton. Haigh, Gilbert William (Harvard Coll. Senior), Lawrence. Hamilton, Burton Everett (Harvard Coll. Senior), Roxbury. Harrington, Amos Thomson, A.B. (Yale Univ.) 1894, s.t.b. (ibid.) 1897, Lyons, N.Y.Haskell, Charles Cheves, A.B. (Univ. of Virginia) 1905, Columbia, S.C. Hegarty, Joseph Gordon (Harvard Coll. Senior), Somerville. Hellmann, Robert Richard, A.B. 1906, Cincinnati, O. Higgins, James Augustine, A.B. (Holy Cross Coll.) 1906. Chicopee Falls. Hill, Prescott Tillinghast, A.B. (Brown Univ.) Providence, R. I. Himebaugh, Lester Clarence, A.B. (Colorado Coll.) Colorado Springs, Colo. 1906. Howes, Frank Miller (Harvard Coll. Senior), Rockland. Hurley, Daniel Joseph, A.B. 1905, Charlestown. Irving, Frederick Carpenter, A.B. 1906, Ogdensburg, N. P. Jacques, Hector, A.B. (Laval Univ.) 1899, St. Hyacinthe, Quebec, Can. Kelley, Clarence Moore, A.B. 1906, Milton, N. H. Kellogg, Foster Standish, A.B. 1906, Boston. Leonard, Ralph Davis (Harvard Coll. Senior), Melrose. Libby, Harold (Harvard Coll. Senior), Roxbury. Lightbody, William Russell, Ph.B. (Brown Univ.) 1906, Manchester, N. H. Lindsay, John Crandall, A.B. (Colby Coll.) 1906, Waterville, Me. †Linn, Tse-sheng, Hong Kong, China. San Francisco, Cal. †Lippman, Caro Wolf, MacAusland, Andrew Roy (Lawrence Scientific Sch. Senior), Taunton. McCarty, James Joseph, Jr. (Harvard Coll. Lowell. Senior), McCrossan, Charles Leo (Harvard Coll. Senior), Somerville. Madden, Leon Irving, A.B. (Clark Univ.) 1905, Agawam.

[†] Admitted by special vote of the Administrative Board.

Mahoney, Matthew Patrick, A.B. (Georgetown	
Univ.) 1906,	Lowell.
Marble, Henry Chase, A.B. (Clark Univ.) 1906.	Worcester.
Meader, Charles Nash, A.B. (Colby Coll.) 1906,	Waterville, Me.
Meagher, Patrick Dominick, A.B. (St. Francis	
Xavier's Coll.) 1906,	Lowell.
Miller, Richard Henry, A.B. 1905,	Fitchburg.
Moore, George Albert (Lawrence Scientific Sch.	
Senior),	No. Monroe, N.H.
Naughton, Henry Joseph, A.B. (Holy Cross Coll.)	
1906,	Worcester.
Nelson, Christian Augustus, A.B. (Brown Univ.)	
1903,	Quincy.
O'Sullivan, William Daniel, B.L. (Dartmouth	
Coll.) 1900,	Lawrence.
Palmer, Walter Walker, s.B. (Amherst Coll.)	
1905,	Southfield.
Phillips, Charles Lewis, A.B. (Bates Coll.) 1906,	Lewiston, Me.
Pierce, Glenn McKillips, PH.B. (Westminster	
Coll.) 1906,	W. Elizabeth, Pa.
Popoff, Constantine,	Sliven, Bulgaria.
Porter, Emery Moulton, Ph.B. (Brown Univ.)	with the same of t
1906,	Providence, R.I.
Reynolds, Ralph Leavitte, A.B. (Colby Coll.) 1906,	Waterville, Me.
Richardson, Clarence Hudson, A.B. (Lincoln Univ.)	· ·
1901,	Philadelphia, Pa.
Richardson, Herbert Appleton, s.B. (Mass. Inst.	i www.copieta, i a.
of Tech.) 1887,	Roslindale.
Richardson, Henry Stephen, A.B. (Amherst Coll.)	103000000000000000000000000000000000000
1904,	Amherst.
Riley, William Bernard, A.B. (Holy Cross Coll.)	Antiterst.
1905,	Central Falls, R.I.
Ryder, Charles Tripp, A.B. 1906,	Andover.
	Anaover.
Sandoval, Domiciano Jara, A.B. (St. Juan de	T T1-:1- TD T
Latran) 1901,	Jaro, Iloilo, P.I.
Sanford, Rowland Rufus, A.B. (Acadia Univ.)	
	agram, Madras, India.
Shedd, George Harold, A.B. 1905,	No. Conway, N.H.
tSheppard, Philip Albert Edward, Stellenbosch, C	
Starr, Samuel (Lawrence Scientific Sch. Senior)	Salem.

Concord, N.H.

Tarleton, Leeson Oren, PH.B. (Brown Univ.)

1906,

⁺ Admitted by special vote of the Administrative Board.

Thomas, Gilbert Henry, Po-	rt of Spain, Trinidad
Tomkies, James Scott, A.B. (Tulane Univ.)	
1903,	Cameron, Tex.
Twombly, James Woodbury (Harvard Coll.	
Senior),	Jamaica Plain.
Walker, William Joseph, A.B. (Holy Cross Coll.)	- 11
1904,	Providence, R.I.
Walsh, John Gormley, A.B. (Brown Univ.) 1906,	Providence, R.I.
Ware, Malcolm Cunningham (Harvard Coll.	East Milton.
Senior), †Whitney, George Harold,	Lexington, Ky.
wintney, George Harold,	Lexington, Ay.
SPECIAL STUDENT.	
Soule, William Lamson, A.B. (Colby Coll.) 1890,	
M.D. (Boston Univ. Med. Sch.) 1896,	Waterville, Me.
† Admitted by special vote of the Administra	ative Board.
,	
CITILIN A DAY	
SUMMARY.	
In Courses for Graduates, 1906-07 (to 1	Nov. 6) 22
FOURTH CLASS	58
THIRD CLASS	54
SECOND CLASS	
FIRST CLASS	
SPECIAL STUDENT	1
Total	304
In Courses for Graduates, 1905-06, after	publication
of Catalogue for 1905-06	

In Summer Courses, 1906 192

GRADUATES OF COLLEGES.

Acadia College 1	University of Nebraska 1
Amherst College	University of North Carolina 1
Bates College 2	Oberlin College
Boston College 7	Princeton College 1
Boston University 4	Ripon College 1
Bowdoin College 4	University of Rochester 1
Brown University 26	Royal Liceo Gioberti (Turin, Italy) . 1
University of California 3	St. Anselm's College 1
Carleton College 1	St. Francis Xavier's College 4
Christian Brothers' College (St. Louis) 1	St. Joseph's University 1
Clark University 4	St. Juan de Latran 1
Colby College 5	Syrian Protestant College 1
Colgate University 2	Trinity College (Conn.) 2
l'olorado College 2	Tufts College
University of Colorado 1	Tulane University 1
Cornell University 1	University of Pennsylvania 1
Dartmouth College	University of Vermont
Davidson College 1	University of Virginia 1
Georgetown University 2	Wesleyan University 1
Harvard University	Western Reserve University 1
Holy Cross College 11	Westminster College 1
University of Illinois 1	West Virginia University 1
Iowa College	Williams College 4
Laval University 1	Worcester Polytechnic Institute 1
Leland Stanford Jr. University 6	Yale University 4
Lincoln University 1	
University of Maine 1	Total
Massachusetts Agricultural College . 1	Counted twice 1
Massachusetts Institute of Technology 3	Total Number College Graduates 266
Middlebury College 1	=
University of Missouri 1	Number of Colleges 56

THE SUMMER SCHOOL OF MEDICINE.

Adams, Charles Franklin, Ph.G. (Philadelphia Coll. of Pharm.) 1882, M.D. (Jefferson Med. Coll.) 1887,

Alsever, William Dewey, s.B. (Syracuse Univ.) 1896, M.D. (ibid.) 1900,

Appleton, Vivia Belle, A.B. (Cornell Univ.) 1901, M.D. (Johns Hopkins Med. Sch.) 1906,

Arnold, Seth Fenelon,

Ashley, Robert Warren, A.B. (*Univ. of Colorado*) 1904,

Austrian, Charles Robert, A.B. (Johns Hopkins Univ.) 1904,

Backstrom, James Louis, M.D. (Medical Dept. Vanderbitt Univ.) 1900,

Bailey, Charles Hervey, A.B. (Brown Univ.) 1903,
 Bennett, Hamlin Perley, A.B. (Dartmouth Coll.)
 1903, M.D. (ibid.) 1906,

Bilderback, Joseph Brown, M.D. (Univ. of Oregon) 1905,

Binney, Robert Webster, M.D. (St. Louis Medical Coll.) 1897,

Blanchard, Francis Rand, M.D. (Univ. of Michigan) 1891,

Bliss, George Danforth, M.D. (Boston Univ. Sch. of Med.) 1881,

Bogardus, Fred Brown, M.D. (Chicago Homeo. Med. Coll.) 1901, M.D. (Med. Dept. Univ. of Illinois) 1906,

Bolling, Richard Walker, M.D. (Univ. of Virginia) 1905,

Bolt, Richard Arthur, A.B. (Univ. of Michigan) 1904, M.D. (ibid.) 1906,

Boyle, John Francis, M.D. 1903,

Bradford, Kenneth, M.D., S.B. (Alabama Agric. Mechanical Coll.) 1901, M.D. (Univ. of Virginia) 1905, Trenton, N. J.

Syracuse, N. Y.

Tama, Ia.
Boston.

Ouray, Colo.

Baltimore, Md.

Water Valley, Miss. Dorchester.

Lynn.

Portland, Ore.

Granite City, Ill.

Lakeview, Mich.

Dorchester.

Somers, Mont.

Huntsville, Ala.

St. Louis, Mo. Lowell.

Birmingham, Ala.

Brickley, William Joseph,

Brown, Daniel Eugene, M.D. (Hahnemann Med. Coll., Pa.) 1886,

Brown, Frank Byron, M.D. (Bowdoin Med. Sch.) 1887.

Brownson, William Clarence, M.D. (Univ. of New York) 1878,

Bruce, Harold Milton, A.B. 1902, M.D. 1906,

Buck, Courtney Cloud,

Buxton, Bertram Harrington, A.B. (Brown Univ.) 1904,

Cahill, Francis Joseph, A.B. (Cornell Univ.) 1903, M.D. (ibid.) 1906,

Cahill, John Thomas, M.D. (Bellevue Hosp. Med. Coll.) 1892,

Call, Manfred, M.D. (Med. Coll. of Virginia) 1899,

Callender, George Russell,

Campbell, Moses Gatlin, M.D. (Atlanta Med. Coll.) 1894,

Carroll, John Joseph, M.D. (Univ. of Maryland)
1905,

Carroll, Thomas Francis, M.D. 1899,

Carvill, Alphonso Holland, A.B. (Tufts Coll.) 1866, M.D. (Harvard Med. Sch.) 1869,

Castle, Catherine, M.D. (Boston Univ. School of Med.) 1903,

Chalmers, Hattie Elizabeth, M.D. (Tufts Med. Sch.) 1906,

Clarke, Israel James, M.D. (New York Univ.) 1883,

Connett, James Eddington, M.D. (Coll. of Phys. and Surg., Indianapolis) 1883,

Cooke, Jean Valjean, A.B. (Yale Univ.) 1904, Cornell, William Paterson, M.D. (Med. Coll. of

State of So. Carolina) 1898, Crawford, Lewis Bienvenu, M.D. (Tulane Med.

Sch.) 1905, Creeley, Oscar Slade, s.B. (Tufts Coll.) 1903,

Crump, George Albert, M.D. (Bellevue Hosp. Med. Coll.) 1893,

Culp, Earle Edwin, M.D. (Missouri Med. Coll.) 1896, Charlestown.

Brockton.

Dorchester.

Asheville, N.C. Brookline.

Front Royal, Va.

Providence, R.I.

Hoosick Falls, N.Y.

Hoosick Falls, N. Y.

Richmond, Va.
Northfield.

Atlanta, Ga.

Worcester. Roxbury.

Somerville.

Somerville.

Hudson.

Haverhill.

Lawrenceville, Ill.
Morgantown, W. Va.

Charleston, S. C.

New Orleans, La. Belmont.

New York, N.Y.

St. Louis, Mc.

Daigle, Charles Achille, M.D. (*Laval Univ.*) 1892, Daniels, Ora George, A.B. (*Tufts Coll.*) 1900,

Davidson, Kallman Myer, M.D. (Univ. of Königsberg, Germany) 1887,

Day, Emory Clapp,

Day, Floyd MacArthur, M.D. (Univ. of Minnesota) 1901,

Derr, John Sebastien, M.D. (Univ. of Virginia) 1905,

Derrick, William Wallace, M.D. (Meharry Med. Coll.) 1892, A.B. (Knoxville Coll.) 1894,

Donaldson, James Frank, A.B. (Tufts Coll.) 1898, M.D. (Harvard Med. Sch.) 1902,

Downs, Joshua A, M.D. (State Univ. of Iowa) 1897, PH.G. (Highland Park) 1899,

Dugdale, Frederick, M.D. (Baltimore Med. Coll.) 1903,

Elliott, John Barnwell, Jr., A.M. (Univ. of the South) 1891, M.D. (Tulane Med. Sch.) 1894,

Elliott, James Thomas, A.M. (Richmond Coll.) 1897, M.D. (Ohio Med. Univ.) 1897,

Ellis, Sidney Allen, A.B. (Univ. of Minn.) 1894, Ericson, Erica,

Eshleman, Charles Leverich, A.B. (Tulane Univ.) 1900, M.D. (ibid.) 1904,

Everett, Harold Josselyn, A.B. (Bowdoin Coll.) 1904,

Fisher, Parnell Ellis, A.B. (Yale Univ.) 1891, M.D. (Coll. of Phys. and Surg., New York) 1894,

Fisher, Robert Welles, M.D. (Jefferson Med. Coll.) 1890,

Foster, Ralph Waldo,

French, Samuel William, A.B. 1873, M.D. 1878, Frisch, Edward Herman Frederick,

Gallison, James Murry, A.B. (Brown Univ.) 1904, Gehring, Edwin Wagner, s.B. (Cornell Univ.) 1900, M.D. (Med. Sch. of Maine) 1904,

Gibbons, Myles Aloysius, M.D. (Jefferson Med. Coll.) 1902,

Giddings, Harold Girard, A.B. 1901,

Gilman, Florence, M.D. (Tufts Med. Sch.) 1902, Grauer, Frank, M.D. (Bellevue Hosp. Med. Coll.)

1884,

Montreal, Can. Chelsea.

Boston.

New Orleans, La.

Eugene, Ore.

Boston.

 $Knoxville,\ Tenn.$

Salem.

Glidden, Ia.

Lowell.

New Orleans, La.

Liverpool, O.
Boston.
Boston.

New Orleans, La.

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Providence, R. I.

Salt Lake City, Utah. Millbridge, Me. Milwaukee, Wis. Buffalo, N.Y. Franklin.

Portland, Me.

Scranton, Pa. Gardiner, Me. Meredith, N.H.

New York, N.Y.

Greene, Joseph Berry, A.M. (Univ. of Alabama) 1891, M.D. (Univ. of Virginia) 1893,

Grice, Joseph, M.D. (Univ. of Virginia) 1893, Gudden, Bernard Charles, M.D. (Rush Med. Coll.) 1879,

Haggard, William David, M.D. (Univ. of Tennessee) 1893,

Hall, Lucy Barney, M.D. (Boston Univ. Sch. of Med.) 1893,

Hanavan, John Joseph, M.D. (Univ. of Buffalo) 1906,

Hare, Earle Russell, M.D. (Univ. of Minnesota) 1900,

Hartshorne, Isaac, A.B. (Amherst Coll.) 1904,

Hegarty, John Patrick, M.D. (Western Univ. of Pennsylvania) 1902,

Hickling, Daniel Percy, M.D. (Georgetown Med. Coll.) 1884,

Hills, Charles Everett, M.D. (Dartmouth Med. Sch.) 1901,

Holbrook, Charles Albert, A.B. 1900,

Hood, William Henry, s.B. (Adrian Coll.) 1883, M.D. (Univ. of Michigan) 1886,

Hubbard, Clinton DeWitt, M.D. (Univ. of Michigan) 1891,

Hunter, James Wilson, Jr., A.M. (Univ. of Virginia) 1899, M.D. (ibid.) 1901,

Jackson, Delbert Linscott, s.B. (Dartmouth Coll.) 1904,

James, Benjamin Franklin, Jr.

James, Reginald Sears, A.B. 1905,

Jenckes, Frank Herbert, M.D. (Univ. of the City of New York) 1887,

Jordan, William Henry, M.D. (Maryland Med. Coll.) 1901,

Kerr, Eugene, M.D. (Univ. of Maryland) 1905, Klien, Richard Heinrich, M.D. (Univ. of Leipzig, Germany) 1900,

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Langdon, Robert Macdermott, M.D. (Illinois Univ. Med. Sch.) 1893, M.D. (Long Island Hosp. Med. Sch.) 1896, Birmingham, Ala.
Portsmouth, Va.

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Pittsburg, Pa.

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So. Natick.
Melrose.

 $Reno,\ Nev.$

Parma, Mich.

Norfolk, Va.

Chelsea.
Cambridge.
Cambridge.

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Providence, R.I. Baltimore, Md.

Leipzig, Germany.

Scranton, Ia.

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Lawrence, Charles Henry, Jr., A.B. 1903,

Leathers, Waller Smith, A.M. (Univ. of Virginia) 1892, M.D. (ibid.) 1894,

Leavitt, Mary Augusta, A.B. (Mt. Holyoke Coll.) 1899, M.D. (Boston Univ. Sch. of Med.) 1902,

LeGro, Lester Burnside, M.D. (Baltimore Med. Coll.) 1905,

Lewis, John Marye, M.D. (Univ. of Virginia) 1905,

Lindsey, John Hathaway, A.B. (Brown Univ.) 1892, M.D. (Univ. of Pennsylvania) 1899,

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Loder, Halsey Beach, s.B. (Dartmouth Coll.) 1905, Hanover, N.H. Long, Alfred Dow, Berkeley, Cal.

Long, John Pomfret,

Lyons, Randolph, A.B. (Yale Univ.) 1903,

McCauley, James Douthard, M.D. (Illinois Med. Coll.) 1892,

McCreery, Charles Reuben, A.B. (Carleton Coll.) 1896, M.D. (Univ. of Minnesota) 1902,

McDonald, John Joseph,

McFarland, William, A.B. (Williams Coll.) 1904, McGarrahan, John Francis, M.D. (Albany Med. Coll.) 1894,

McGuire, Hugh, M.D. (Univ. Coll. of Med., Richmond, Va.) 1894,

McLaughlin, Thomas Joseph, A.B. (Mt. St. Mary's Coll.) 1902,

McLeay, John Donaldson, M.D. (Western Univ., London, Can.) 1894,

MacRae, Thomas,

McSweeney, Roland, M.D. (Univ. of Vermont) 1892,

Mahoney, Stephen Andrew, A.B. (Holy Cross Coll.) 1885, M.D. (Harvard Med. Sch.) 1889,

Marion, James Willis Johnson, A.B. 1904,

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1898, M.D. (Univ. of Buffalo) 1904, Mathews, George Stetson, A.B. (Brown Univ.) 1885, M.D. (Univ. of Pennsylvania) 1888, Boston.

University, Miss.

Somerville.

Haverhill.

Manassas, Va.

Fall River. Indianapolis, Ind.

Lowell.
Hanover, N.H.
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Birmingham, Ala.
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Allston.

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Miller, George Fremont,

Miller, William Theodore, Jr., A.B. (Western Reserve Univ.) 1905,

Moore, John William, M.D. (Bellevue Hosp. Med. Coll.) 1899,

Morrison, Hyman, A.B. 1904,

Morrison. John Sheppard, M.D. (Med. Coll. of Ohio) 1897,

Morrison, Sidney King, M.D. (Cooper Med. Coll.) 1902,

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Moseley, William Edward, Jr., M.D. (Baltimore Med. Coll.) 1906,

Mulliner, Mary Rees, M.D. (Boston Univ. Sch. of Med.) 1896,

Munro, John Cummings, A.B. 1881, M.D. 1885,

Naughton, Henry Joseph, A.B. (Holy Cross Coll.) 1906,

Newburgh, Louis Harry, A.B. 1905,

Nickerson, Margaret Lewis, A.B. (Smith Coll.) 1893, A.M. (Radcliffe Coll.) 1895, M.D. (Univ. of Minnesota) 1904,

Nickerson, Winfield Scott, s.D. (Harvard Univ.) 1894, M.D. (Univ. of Minnesota) 1905,

Norwood, Ephraim Wood, A.B. (Colby Coll.) 1869, M.D. (Harvard Med. Sch.) 1882,

O'Donoghue, Edward John,

O'Leary, Dennis Cornelius, A.B. (Holy Cross Coll.) 1896,

O'Meara, John George, M.D. (Univ. of Pennsylvania) 1899,

Parker, Edward Stark, A.B. (Brown Univ.) 1896, M.D. (Harvard Med. Sch.) 1900,

Peabody, Francis Weld, A.B. 1903,

Perkins, George Albion, M.D. (Univ. of Minnesota) 1897,

Pettingill, Olin Sewall,

Pike, Forrest Fay, M.D. 1898,

Pitts, Herman Canfield, M.D. (Yale Med. Sch.) 1900,

Porter, Byron, s.B. (Univ. of Maine) 1904,

Preston, Benjamin Spotswood, M.D. (Coll. of Phys. and Surg., Baltimore, Md.) 1902, Weeks Mills, Me.

Cleveland, O.

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Lafayette, Ind.

Reno, Nev. Clinton.

Baltimore, Md.

Boston. Boston.

Worcester.
Cincinnati, O.

Minneapolis, Minn.

Minneapolis, Minn.

Spencer.

Peterboro, N.H.

Providence, R. I.

Providence, R.I.

Pawtucket, R.I. Cambridge.

Dickinson, No. Dak. Wayne, Me. Melrose.

Providence, R.I. Oldtown, Me.

Burnwell, W. Va.

Preston, John William, M.D. (Coll. of Phys. and Surg., Baltimore) 1893,

Provandie, Paul Hector, M.D. 1898,

Prudden, William Hopkins, M.D. (Univ. of Buffalo) 1905.

Quist, Frank Julius, M.D. (Rush Med. Coll.) 1905, Rankin, Watson Smith, M.D. (Univ. of Maryland) 1901,

Reed, Carlisle, s.B. 1902, M.D. 1905,

Ritter, Roscoe, M.D. (Medical Coll. of Indiana) 1895,

Roberts, Russell Andrew, A.B. (Maryville Coll., Tenn.) 1881, A.M. (ibid.) 1888, M.D. (Med. Coll. of Indiana) 1887,

Robinson, Lee, A.B. (Univ. of Texas) 1904,

Rockwell, John Arnold, Jr., s.B. (Mass. Inst. of Tech.) 1896, M.D. (Boston Univ. Sch. of Med.) 1899.

Rhodes, Frederick Augustus, M.D. (West Pennsylvania Med. Coll.) 1900,

Ryder, Charles Edward, M.D. 1898,

Sawyer, Frank Wade, M.D. (Univ. of the City of New York) 1893,

Schaefer, Arthur Charles, M.D. (Univ. of Buffalo) 1906.

Scott, Ernest Winfield,

Scott, William Francis, M.D. (Rush Med. Coll.) 1887,

Seelye, Walter Clark, A.B. (Amherst Coll.) 1895, M.D. (Harvard Med. Sch.) 1899,

Sholl, Harry Earle,

Shults, James Henry, A.M. (Syracuse Univ.) 1878, M.D. (ibid.) 1888,

Simmons, Moyses Rogers, M.D. 1882,

Sissa, Silvio,

Slack, Henry Richmond, PH.M. (Univ. of Maryland) 1891, M.D. (Atlanta Med. Coll.) 1891,

Smith, Edward Franklin, M.D. (Bellevue Hosp. Med. Coll.) 1889,

Smith, Peter Mathew, M.D. (Georgetown Univ. Med. Dept.) 1894,

Staples, George Allen, A.B. 1881, M.D. (Columbia Med. Coll.) 1885,

Keystone, W. Va.
Melrose Highlands.

Lockport, N.Y. Chicago, Ill.

Wake Forest, N.C. Boston.

Indianapolis, Ind.

Kansas City, Kan. Palestine, Tex.

Cambridge.

Pittsburg, Pa. So. Boston.

Hot Springs, Ariz.

Buffalo, N. Y. Eudora, Ark.

Port Washington, Wis.

Worcester.
Peoria, Ill.

Los Angeles, Cal. Quincy. E. Boston.

La Grange, Ga.

New York, N.Y.

Boston.

Dubuque, Ia.

Stimson, Charles Augustus, M.D. (Univ. of Michigan) 1891,

Sturtevant, Roy Eliot, A.B. 1901, s.B. 1902,

Sullivan, Florence Augustin, M.D. (Baltimore Med. Coll.) 1900,

Swift, John Baker, Jr., A.B. 1904,

Swift, Walter Babcock, A.B. 1901,

Tenney, Albert Seward, A.B. (Cornell Univ.) 1905, Tilton, Earle Edward,

Titus, Jerome Hill, M.D. (Rush. Med. Coll.) 1900, Toppan, Roland Lesley, A.B. 1904,

Valentine, Walter Henry, M.D. (Univ. of Minnesota) 1900,

Van Epps, Clarence, s.B. (State Univ. of Iowa) 1894, M.D. (ibid.) 1897, M.D. (Univ. of Pennsulvania) 1898.

Waddell, Jerrold Ross,

Walker, Irving James, A.B. 1903,

Walsh, Edmund Francis, A.B. 1904,

Welker, Leo Edward, Ph.B. (Iowa Coll.) 1903,

Whittier, Frank Nathaniel, A.M. (Bowdoin Coll.) 1888, M.D. (ibid.) 1889,

Wiggin, Chester McLoon, M.D. (Univ. of Vermont) 1906,

Wiley, Percy Joseph, M.D. (Univ. of Oregon) 1905, Worthen, Clarence Field, s.B. (Univ. of Vermont) 1903,

Yount, Clarence Edgar, M.D. (Georgetown Univ. Med. Dept.) 1896, Eaton Rapids, Mich. Roxbury.

Haverhill.

Boston.

Wellesley Hills.

Cambridge.

Malden.
Montevideo, Minn.

Malden.

Cannon Falls, Minn.

Iowa City, Ia. Chatham, Can.

Malden.

Boston.

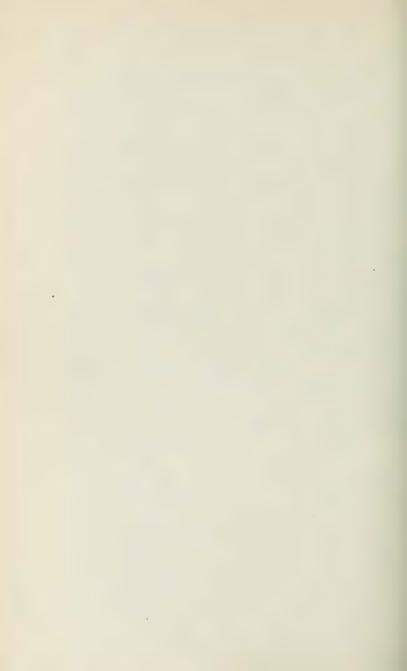
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OFFICIAL REGISTER

OF

HARVARD UNIVERSITY

VOLUME IV NOVEMBER 19, 1907 NUMBER 38

Extra Ed.

THE

HARVARD MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

1907-08

SECOND EDITION



Published by Harvard University CAMBRIDGE, MASS.



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OF THE

MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

 \mathbf{OF}

HARVARD UNIVERSITY

FOR

1907-08

SECOND EDITION



CAMBRIDGE
Published by the University
1907

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MEDICAL SCHOOL CALENDAR.

1907.

- Sept. 19, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 25, Wednesday. Examination in Chemistry for admission.
- Sept. 26, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 1, Tuesday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Friday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 28, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Saturday. Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1907, TO JAN. 2, 1908, INCLUSIVE. 1908.

- Jan. 1, Wednesday. Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 15, Wednesday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1908.
- Jan. 30, Thursday. Mid-year Examinations begin.
- Jan. 31, Friday. Payment of the second instalment of the tuitionfee is required on or before this date.
- Feb. 1, Saturday. Second half-year begins.
- Feb. 22, Saturday. Washington's Birthday: a holiday.
- April 1, Wednesday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 19 TO APRIL 25, INCLUSIVE.

- May 1, Friday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 1, Friday. Last day for receiving applications of candidates for the degree of M.D. in 1908.
- May 30, Saturday. Memorial Day: a holiday.
- June 1, Monday. Last day for receiving applications for Scholarships for 1908-09 (except the Cheever and Hayden Scholarships).
- June 1, Monday. Examinations begin.
- June 24, Wednesday. Commencement.
 - Summer Vacation of Fourteen Weeks, from Commencement to September 30, inclusive.
- June 25, Thursday. Examination in Chemistry for admission.
- Sept. 24, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 30, Wednesday. Examination in Chemistry for admission.
- Oct. 1, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 1, Thursday. Last day for receiving applications for the Bullard Fellowships.
- Oct. 31, Saturday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 26, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Monday. Last day for receiving applications for the Cheever and Hayden Scholarships.

THE MEDICAL SCHOOL.

FACULTY OF MEDICINE.*

CHARLES W. ELIOT, A.M., LL.D., PRESIDENT.

_____, Dean.

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ABNER POST, M.D., Assistant Professor of Syphilis.

JAMES J. PUTNAM, M.D., Professor of Diseases of the Nervous System. ELBRIDGE G. CUTLER, M.D., Instructor in the Theory and Practice of Physic.

FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical

Medicine.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery. CHARLES A. BRACKETT, D.M.D., Professor of Dental Pathology.

THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.

EUGENE H. SMITH. D.M.D., Professor of Mechanical Dentistry and Orthodontia, and Dean of the Dental School.

WILLIAM F. WHITNEY, M.D., John Barnard Swett Jackson Curator

of the Warren Anatomical Museum.

CHARLES S. MINOT, S.D., LL.D., D.Sc., James Stillman Professor of Comparative Anatomy.

MAURICE H. RICHARDSON, M.D., Moseley Professor of Surgery.
CHARLES M. GREEN. M.D., Professor of Obstetrics, and Secretary
of the Faculty of Medicine.
EDWARD C. BRIGGS, M.D., D.M.D., Professor of Dental Materia

Medica and Therapeutics.

HERBERT L. BURRELL, M.D., Professor of Clinical Surgery.

WILLIAM T. COUNCILMAN, M.D., LL.D., Shattuck Professor of Pathological Anatomy.

MYLES STANDISH, M.D., Assistant Professor of Ophthalmology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.

CHARLES HARRINGTON, M.D., Professor of Hygiene.

PHILIP COOMBS KNAPP, M.D., Clinical Instructor in Diseases of the Nervous System.

WILLIAM H. POTTER, D.M.D., Professor of Operative Dentistry.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

JOHN T. BOWEN, M.D., Edward Wigglesworth Professor of Dermatology.

^{*} Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

HENRY JACKSON, M.D., Instructor in Clinical Medicine.

GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine. ALGERNON COOLIDGE, Jr., M.D., Assistant Professor of Laryngology.

FRANZ PFAFF, M.D., Professor of Pharmacology and Therapeutics. THEOBALD SMITH, M.D., George Fabyan Professor of Comparative Pathology.

WILLIAM T. PORTER, M.D., Professor of Comparative Physiology.

JAMES G. MUMFORD, M.D., Instructor in Surgery.

FRANK B. MALLORY, M.D., Associate Professor of Pathology. EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical

Pathology.

JOHN B. BLAKE, M.D., Instructor in Surgery.

HOWARD A. LOTHROP, M.D., Instructor in Surgery,

JOHN L. MORSE, M.D., Assistant Professor of Pediatrics.

CHARLES A. PORTER, M.D., Instructor in Surgery.

EDWARD W. TAYLOR, M.D., Instructor in Neurology.

RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.

ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic.

JAMES H. WRIGHT, M.D., S.D., Assistant Professor of Pathology. OTTO FOLIN, Ph.D., Associate Professor of Biological Chemistry. ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

HENRY A. CHRISTIAN, M.D., Assistant Professor of the Theory and Practice of Physic.

CARL L. ALSBERG, M.D., Instructor in Biological Chemistry.

JOHN L. BREMER, M.D., Demonstrator of Histology.

WALTER B. CANNON, M.D., George Higginson Professor of Physiology.

JOHN WARREN, M.D., Demonstrator of Anatomy.

FREDERIC T. LEWIS, M.D., Assistant Professor of Embryology. ELMER E. SOUTHARD, M.D., Assistant Professor of Neuropathology.

STANDING COMMITTEES FOR THE MEDICAL SCHOOL.

Buildings.— Dr. J. Warren (Chairman), and Drs. Bremer and Cannon. Course of Study.— Dr. Fitz (Chairman), and Drs.————, Shattuck, Minot, Burrell, Mallory, and Cannon.

Nominations. — Dr. Bradford (Chairman), and Drs. Ernst, Harrington, Bowen, and Jackson.

Graduate and Summer Courses. — Dr. Mallory (Chairman), and Drs. Green, Morse, Cabot, Joslin, Greenough, and J. Warren.

Library. — Dr. Joslin (Chairman), and Drs. Minot, Harrington, Mallory, and Alsberg.

Admission. - Dr. - (Chairman), and Drs. Green and Mallory.

Students' Health. — Dr. Ernst (Chairman), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

THE HARVARD MEDICAL SCHOOL.

BOSTON.

GENERAL STATEMENT.

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of Bachelor of Medicine; beginning with 1811, the degree has been Doctor of Medicine. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first Medical College was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course

of study is so arranged that the first three years are devoted to prescribed work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 56.

The degree of Doctor of Medicine cum lande is given to candidates who obtain an average of 80 per cent. or over in all the required examinations.

Beginning in 1906, special students, not candidates for the degree of Doctor of Medicine, will be admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 68.

Pamphlets descriptive of the many courses of study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Secretary of the Harvard Medical School, Longwood Avenue, Boston, Mass.

The New Buildings.

In September, 1906, the Medical School removed from its quarters on Boylston Street to commodious new buildings on Longwood Avenue, distant about a mile from the old building. At the new site the School possesses twenty-six acres of land. Eleven acres are now occupied by the Medical School buildings; the other fifteen are reserved for hospitals which, it is hoped, will be built on this ground in the near future.

The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, and biological chemistry; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) hygiene, pharmacology, comparative pathology, and surgical research.

The laboratory buildings are all constructed on one general plan, —two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been

designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms were originally designed. These buildings will provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

ADMINISTRATIVE BOARD.

FREDERICK C. SHATTUCK, M.D., Professor of Clinical Medicine. WILLIAM F. WHITNEY, M.D., Curator of the Anatomical Museum. CHARLES M. GREEN, M.D., SECRETARY, and Professor of Obstetrics. CHARLES HARRINGTON, M.D., Professor of Hygiene. JOHN T. BOWEN, M.D., Professor of Dermatology. HENRY JACKSON, M.D., Instructor in Clinical Medicine. FRANK B. MALLORY, M.D., Associate Professor of Pathology. WALTER B. CANNON, M.D., Professor of Physiology. JOHN WARREN, M.D., Demonstrator of Anatomy.

Office Hours of the Dean, Monday and Thursday, 4 to 5 p.m.; of the Secretary, Wednesday and Friday, 5 to 6 p.m.

STANDING COMMITTEES.

Advertising and Catalogue. — Dr. Green (Chairman), and Drs. Mallory and Cannon.

Warren Museum. — — (Chairman), and Drs. Whitney and Mallory.

Scholarships and Students' Aid. — — — (Chairman), and Drs. Green and Cannon.

INSTRUCTORS, LECTURERS, AND ASSISTANTS.*

EDWARD COWLES, M.D., LL.D., Instructor in Mental Diseases.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

GEORGE W. GAY, M.D., Lecturer on Surgery.

GEORGE T. TUTTLE, M.D., Clinical Instructor in Mental Diseases. SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

^{*} Arranged on the basis of collegiate seniority.

of Physic.

GEORGE H. MONKS, M.D., M.R.C.S., Lecturer on Surgery. FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery. FRANCIS B. HARRINGTON, M.D., Lecturer on Surgery. ROBERT W. LOVETT, M.D., Instructor in Orthopedics. WILLIAM NOYES, M.D., Clinical Instructor in Mental Diseases. J. PAYSON CLARK, M.D., Assistant in Laryngology. CHARLES L. SCUDDER, M.D., Lecturer on Surgery. ELLIOTT G. BRACKETT, M.D., Instructor in Orthopedics. ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic. FREDERIC C. COBB, M.D., Instructor in Laryngology. EDWIN E. JACK, M.D., Instructor in Ophthalmology. AUGUSTUS THORNDIKE, M.D., Assistant in Orthopedics. PAUL THORNDIKE, M.D., Instructor in Genito-Urinary Surgery. GEORGE A. CRAIGIN, M.D., Clinical Instructor in Pediatrics. JOEL E. GOLDTHWAIT, M.D., Instructor in Orthopedics. MALCOLM STORER, M.D., Assistant in Gynaecology. LANGDON FROTHINGHAM, M.D.V., Instructor in Bacteriology. JOHN W. BARTOL, M.D., Assistant in Clinical Medicine. WILLIAM E. FAULKNER, M.D., Assistant in Surgery. ELISHA FLAGG, M.D., Assistant in Anatomy. JAMES M. JACKSON, M.D., Assistant in Clinical Medicine. ALEXANDER QUACKENBOSS, M.D., Instructor in Ophthalmology. EUGENE A. CROCKETT, M.D., Instructor in Otology. FRED B. LUND, M.D., Assistant in Surgery. HARVEY P. TOWLE, M.D., Assistant in Dermatology. GEORGE W. W. BREWSTER, M.D., Assistant in Surgery. JOSEPH L. GOODALE, M.D., Assistant in Laryngology. JAMES S. STONE, M.D., Assistant in Surgery. ROCKWELL A. COFFIN, M.D., Assistant in Laryngology. PHILIP HAMMOND, M.D., Instructor in Otology. HENRY H. HASKELL, M.D., Assistant in Ophthalmology. HENRY F. HEWES, M.D., Instructor in the Clinical Laboratory. CALVIN G. PAGE, M.D., Assistant in Bacteriology. C. MORTON SMITH, M.D., Assistant in Syphilis. CHARLES J. WIHITE, M.D., Instructor in Dermatology. FRANKLIN W. WHITE, M.D., Assistant in Clinical Medicine. OTIS F. BLACK, A.M., Assistant in Biological Chemistry. ERNEST A. CODMAN, M.D., Assistant in Surgery. WILLIAM P. GRAVES, M.D., Assistant in Gynaecology. WILLIAM H. ROBEY, JR., M.D., Assistant in Clinical Medicine. GEORGE S. C. BADGER, M.D., Assistant in the Theory and Practice EDMUND W. CLAP, M.D., Assistant in Ophthalmology.

JOSHUA C. HUBBARD, M.D., Assistant in Surgery.

DANIEL F. JONES, M.D., Assistant in Surgery.

HARRIS P. MOSHER, M.D., Assistant in Anatomy, in Laryngology, and in Otology.

FRANKLIN S. NEWELL, M.D., Instructor in Obstetrics and Gynae-cology.

HENRY J. PERRY, M.D., Assistant in Bacteriology.

WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.

ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.

ERNEST B. YOUNG, M.D., Assistant in Gynaecology.

CHARLES S. BUTLER, M.D., Assistant in Anatomy.

HENRY O. MARCY, JR., M.D., Assistant in Anatomy.

FRED M. SPALDING, M.D., Assistant in Ophthalmology.

HOWARD T. SWAIN, M.D., Assistant in Obstetrics.

FREDERICK S. BURNS, M.D., Assistant in Dermatology.

LE ROI G. CRANDON, M.D., Assistant in Surgery.

EUGENE E. EVERETT, M.D., Assistant in Bacteriology.

WALTER C. HOWE, M.D., Assistant in Surgery.

MAYNARD LADD, M.D., Instructor in Pediatrics.

GEORGE B. MAGRATH, M.D., Instructor in Legal Medicine, and Assistant in Hygiene.

JOSEPH H. PRATT, M.D., Assistant in the Theory and Practice of Physic.

DAVID H. WALKER, M.D., Assistant in Otology.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.

CHANNING C. SIMMONS, M.D., Assistant in Surgery.

WILDER TILESTON, M.D., Assistant in Clinical Medicine.

JAMES R. TORBERT, M.D., Assistant in Obstetrics.

GEORGE A. WATERMAN, M.D., Assistant in Neurology.

LEONARD W. WILLIAMS, Ph.D., Instructor in Comparative Anatomy.

CHARLES H. DUNN, M.D., Assistant in Pediatrics.

EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

LUTHER D. SHEPARD, JR., M.D., D.M.D., Instructor in Histology.

EDWARD N. TOBEY, M.D., Assistant in Bacteriology.

MAURICE V. TYRODE, M.D., Instructor in Pharmacology.

HERMAN M. ADLER, M.D., Assistant in the Clinical Luboratory.

DAVID CHEEVER, M.D., Assistant in Anatomy.

FREDERICK P. GAY, M.D., Assistant in Pathology.

FREDERICK T. LORD, M.D., Assistant in Clinical Medicine.

ERNEST G. MARTIN, Ph.D., Instructor in Physiology.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

ERNEST E. TYZZER, M.D., Assistant in Pathology.

HENRY I. BOWDITCH, M.D., Assistant in Pediatrics.

LAWRENCE J. HENDERSON, M.D., Instructor in Biological Chemistry.

FRANCIS W. PALFREY, M.D., Assistant in the Theory and Practice of Physic.

HENRY D. LLOYD, M.D., Assistant in Materia Medica.

WILLIAM B. ROBBINS, M.D., Assistant in the Clinical Laboratory.

S. BURT WOLBACH, M.D., Instructor in Pathology.

JAMES D. BARNEY, M.D., Assistant in Anatomy.

MARSHAL FABYAN, M.D., Assistant in Comparative Pathology.

THOMAS ORDWAY, M.D., Assistant in Pathology.

FRANCIS H. McCRUDDEN, S.B., Assistant in Biological Chemistry.

EDWARD B. MEIGS, M.D., Instructor in Physiology.

CHARLES L. OVERLANDER, M.D., Assistant in the Clinical Laboratory.

ROBERT M. GREEN, M.D., Assistant in Surgery.

ROGER I. LEE, M.D., Assistant in the Theory and Practice of Physic. ALEXANDER R. ROBERTSON, M.D., C.M., Assistant in Pathology.

FREDERIC C. BLANCK, Ph.D., Research Assistant in Biological Chemistry.

JOHN BRYANT, Jr., M.D., Assistant in Pathology and Neuropathology.

ARIAL W. GEORGE, M.D., Assistant in Anatomy.

AUSTIN TEACHING FELLOWS.

CLEAVELAND FLOYD, M.D., in Bacteriology.
FRANK L. RICHARDSON, M.D., in Surgery.
PAUL A. LEWIS, M.D., in Comparative Pathology.
VICTOR E. EMMEL, S.M., Ph.D., in Histology and Embryology.
RICHARD E. SCAMMON, A.M., in Histology and Embryology.

THE HARVARD MEDICAL SCHOOL.

ADMISSION OF STUDENTS.

Candidates for admission to this School must present a degree in Arts, Literature, Philosophy, or Science from a recognized college or scientific school, with the exception of such persons, of suitable age and attainments, as may be admitted by a special vote of the Administrative Board in each case.*

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry, Qualitative Analysis, and elementary Organic Chemistry sufficient to fit them to pursue the courses in Chemistry given at the Medical School; or, failing in this, to pass examinations in these subjects. Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry; but they must make up the condition before the beginning of the second half-year.

The admission examination in Chemistry (at which time also the note-books in Qualitative Analysis must be handed in) is held at the Medical School, Longwood Avenue, Boston, at 10 A.M., on the Thursday following the last Wednesday in June, and on the last Wednesday in September. The examination is conducted in writing.

Applicants for admission to the Medical School who have studied three years in recognized colleges, technical, or scientific schools, in which courses in Human Anatomy, Physiology, Histology, and Biological Chemistry are a part of the instruction, may be admitted to advanced standing, provided they pass an examination in these subjects and possess the other requirements for admission.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations required in the full undergraduate course and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examinations), and June. The next year will begin October 1, 1908.

^{*} The exception above referred to applies only to men who, without such a degree, have acquired an equivalent education and training sufficient to enable them to profit by the instruction offered in the School.

DIVISION OF STUDENTS.

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register on Thursday, the first day of the academic year.

Beginning with the academic year 1906-07 students will be required to devote themselves exclusively to the work of the School.*

Students who began their professional studies in other recognized Medical Schools may be admitted to advanced standing. All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission; but any student who has fulfilled the requirements of a Department of this School in another school of recognized standing may be excused from repeating such requirements provided the instruction which he has received is considered satisfactory by the head of the Department in this School.

Any student may obtain a certificate of his period of connection with the School.

^{*} The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

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FOURTH YEAR ELECTIVES	Surgery Genito-Urinary Surgery Orthopedies Surgical Pathology Obstetries Gynaecology Dernatology and Syphilis Neurology and Psychiatry Ophthalmology Otology Laryngology
	Anatomy Comparative Anatomy Embryology Histology Cytology Cytology Biochemistry Biochemistry Bacteriology Pathology Neuropathology Hygiene Clinical Medicine Theory and Practice Clinical Pathology Pediatrics Clinical Surgical Pathology
THIRD YEAR	*Muteria Medica and Therapeuties *Theory and Practice Ginical Medicine *Surgery (written 2 hrs., practical 1 hr., 3 Clinical Surgery (written 1 hr., practical 1 hr.) Obstetries Gynaccology Dermatology Syphilis Neurology Psychiatry Psychiatry Rothalmology Laryngology Laryngology Laryngology Laryngology Laryngology Legal Medicine Municipal Sanitation
SECOND YEAR	*Bucteriology 1 *Pathology 8 Ilygiene 1 Materia Medica and Therapeutics Theory and Practice Clinical Medicine Surgery
Pussy Year	*Anakony *Histology and Embryology Physiology Biochemistry 3

Nore.—Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates the length in hours of the examination. In the fourth year, eleving the chosen aggregating 1000 hours; each elective or half-course has value of 125 hours. * Examination in February.

METHODS OF INSTRUCTION.

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE TABULAR VIEWS.

B.C.H. = Boston City Hospital.

B.D. = Boston Dispensary.

B.I.H. = Boston Insane Hospital (Pierce and Austin Farms).

B.L.H. = Boston Lying-in Hospital.

Ch.H. = Children's Hospital.

E. and E.I. = Massachusetts Charitable Eye and Ear Infirmary.

F.H. for W. = Free Hospital for Women.

H.M.S. = Harvard Medical School.

I.H. = Infants' Hospital.

L.I.H. = Long Island Hospital.

McL.H. = McLean Hospital.

M.G.H. = Massachusetts General Hospital.

S.D.B.C.H. = South Department, Boston City Hospital.

S.H. · Samaritan Hospital.

S.O.P.D. = Surgical Out-Patient Department.

Anatomy.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

John Warren, M.D., Demonstrator of Anatomy.

ELISHA FLAGG, M.D., Assistant in Anatomy.

Harris P. Mosher, M.D., Assistant in Anatomy.

CHARLES S. BUTLER, M.D., Assistant in Anatomy.

HENRY O. MARCY, Jr., M.D., Assistant in Anatomy.

David Cheever, M.D., Assistant in Anatomy.

DAVID D. SCANNELL, M.D., Assistant in Anatomy.

James D. Barney, M.D., Assistant in Anatomy.

ARIAL W. GEORGE, M.D., Assistant in Anatomy.

First year. — The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Text-books. - Piersol. Cunningham. Gray. Quain. Morris. Gerrish.

Woolsey, Applied Anatomy.

Collateral Reading. — Dwight, Frozen Sections of a Child. Dwight, Clinical Atlas of Variations of Hands and Feet. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Testut, Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Tillaux, Anatomie topographique. Humphry, Human Skeleton.

FIRST YEAR.

October.

Lectures. Professor Dwight. Seven hours weekly. 28
Demonstrations and study of bones and joints. Three hours daily. 60

November and December.

Lectures. Professor DWIGHT. Three hours a week 24

Demonstrations. Dr. Warren. Four times a week to sections of the class. 32

Practical anatomy with demonstrations. Three hours a day, five times a week. 120

January.

Demonstrations. Dr. Warren. Four times a week to sections of the class.

16

Provided anatomy, with registrions. Three hours a day fire times a

Practical anatomy with recitations. Three hours a day, five times a week.

Demonstrations and study of the brain and organs of sense. Three hours a day, five times a week.

Comparative Anatomy.

Charles S. Minot, S.D., LL.D., D.Sc., James Stillman Professor of Comparative Anatomy.

FREDERIC T. LEWIS, M.D., Assistant Professor of Embryology.

JOHN L. BREMER, M.D., Demonstrator of Histology.

LEONARD W. WILLIAMS, Ph.D., Instructor in Comparative Anatomy.

LUTHER D. SHEPARD, Jr., M.D., D.M.D., Instructor in Histology.

VICTOR E. EMMEL, S.M., Ph.D., Austin Teaching Fellow in Histology and Embryology.

RICHARD E. SCAMMON, A.M., Austin Teaching Fellow in Histology and Embryology.

LABORATORY.

The laboratory comprises the whole southeast wing of the new Morgan Anatomical Building. There are fifteen unit rooms for class work, each of which measures twenty-three by thirty feet, is well lighted, and will be thoroughly equipped as needed Each unit room is designed for twenty-four elementary or twelve advanced students. There are separate rooms for the various officers, store rooms, collection room, animal room, etc. There is a large library in which complete files of the most important anatomical and morphological journals will be placed, together with many standard works of reference, and in an adjoining room a collection of about eight thousand pamphlets. A card catalogue and a classified bibliography are maintained which give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in comparative anatomy in the broadest sense, including histology and embryology. The former Department of Histology and Embryology has been merged with the new Department of Comparative Anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises nearly twelve hundred series of sections of carefully selected typical vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection also includes fifty-one series of sections from human embryos, several of which are of exceptional value, among them being one of the very youngest stages of man yet known.

Text-books. — Stöhr's Histology, edited by F. T. Lewis. Minot, Laboratory Text-book of Embryology.

Collateral Reading.—Quain, Anatomy. Lee, Microtomist's Vademecum. Kölliker, Gewebelehre. Minot, Human Embryology. Van Gehuchten, Système nerveux.

REGULAR COURSES.

First year. — Histology and Embryology are taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December. Every student is recommended to purchase a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term. Each student is charged a laboratory fee of three dollars.

FIRST YEAR.

October, November, December.

Lectures. Professor Minot, Dr. Bremer, Dr. Lewis. One half-hour five times a week.

Laboratory work. Three and one-half hours five times a week. 210
Quiz. Two hours once a week. 24

GRADUATE COURSES.

- I. Comparative Anatomy. The fourth-year electives are open to graduates. These are four half-courses, mornings or afternoons, throughout the year.
- II. Embryology. Two half-courses, afternoons, February-March; April-May.
 - III. Histology. Half-course, afternoons, April-May.
- IV. Professor Minor with Assistant Professor Lewis will give a course of thirty-two exercises on Elementary Human Embryology for practitioners. This course can be extended by a supplementary course of the same length. Fee, \$25.

Graduates taking these courses will be allowed the privilege of the Histological Laboratory. There will be an additional charge of \$5 for reagents and material.

V. Professor Minor with Assistant Professor Lewis and Drs. Bremer and Scammon will give a course intended for persons who wish to make a special study of Vertebrate or Human Embryology. This course is open to registered students of the Graduate Department of the Faculty of Arts and Sciences, and will be offered hereafter also as a special course to graduate students of the Medical School.

This course will extend through the entire year, but in two parts of one term each. The resources of the Embryological Laboratory in apparatus and material render it possible to offer unusually favorable opportunities for both general study and special research. The course is arranged for those who, as morphologists, anatomists, and practitioners, wish to give the principal part of their time for one or more school terms to the subject. It will cover the whole field of Embryology, including the genital products, the theories of heredity and sex, the formation of the germ-layers, differentiation of the organs, the history of the placenta and the general morphology of Vertebrates or of Man. Most of the work will be done by the student in the laboratory, but there will also be formal lectures. Students taking this course will be expected to devote to it not less than eighteen hours a week.

Fee, for one term, \$75. Two terms, \$125.

The above courses will be limited to twelve students in each course.

INVESTIGATION.

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are

offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology.

Walter B. Cannon, M.D., George Higginson Professor of Physiology. Ernest G. Martin, Ph.D., Instructor in Physiology. Edward B. Meigs, M.D., Instructor in Physiology.

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately two hundred hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised weekly.

Observations of his own experiments by the student are supplemented by thirty-two special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis based upon reading of the records of original investigations is required of each student. The preparation of a bibliography on a subject in Physiology is also required. The

Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. There is insufficient time for presenting before the class all the theses written each year. Certain theses of special importance in relation to the regular instruction, between forty-five and fifty in number, are chosen to be presented. In each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Theories of muscular contractility, Color-blindness, Heart-block, Haemolysis, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, daily and weekly written tests are given. The daily tests, fifteen minutes in duration and consisting of two questions, serve to emphasize important points in any part of the work recently considered. Following are some of the questions: Does blood enter or leave the ventricle in the interval between the first and second heart sounds? Between the second and first sounds? What is referred pain? What are the relative limits of the various kinds of color-blindness in the normal eye?

The weekly tests, one hour in length, require a more general review of previous work than the daily tests. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the written tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first four weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Text-books.—No special text-book is required, but the following books are recommended for reading and connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Porter, Introduction to Physiology. Nagel, Handbuch der Physiologie.

FIRST YEAR (Second half).

Laboratory experiments.	Professor Cannon,	and Drs.	MARTIN	and	MEIGS.
Daily, except Saturde	ıy.				200

Written tests (76). Fifteen minutes daily, except Monday and Saturday.

15

38

Written tests (15). One hour Mondays.

Lectures (90). Professor Cannon, and Drs. Martin and Meigs. 90

Special demonstrations (32). Professor Cannon, and Drs. Martin and Meigs.

Discussion of Theses (50).

Thesis. Written by each student from the original sources.

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

INVESTIGATION.

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology.

WILLIAM T. PORTER, M.D., Professor of Comparative Physiology.

GRADUATE COURSES.

- I. Physiological Research. Students qualified for research will pursue their investigations under the immediate direction of Professor W. T. PORTER.
- II. Comparative Physiology of Muscle. Professor Porter. Three hours weekly during February and March.
- III. Physiological Conference. Professor Porter. Demonstrations with informal discussions of selected problems in physiology. Mondays 5 to 6 p.m., throughout the year.

Biological Chemistry.

Otto Folin, Ph.D., Associate Professor of Biological Chemistry.

Carl L. Alsberg, M.D., Instructor in Biological Chemistry.

Lawrence J. Henderson, M.D., Instructor in Biological Chemistry.

Otis F. Black, A.M., Assistant in Biological Chemistry.

Francis H. McCrudden, S.B., Assistant in Biological Chemistry.

Frederic C. Blanck, Ph.D., Research Assistant in Biological Chemistry.

FIRST YEAR

Biochemistry 1. — The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, by Dr. Henderson; and of the general principles and more important facts of Chemical Physiology and Pathology, by Dr. Alsberg.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Chemistry 15, offered by the Division of Chemistry of the Faculty of Arts and Sciences, in some respects a parallel course, or its equivalent, together with a somewhat extended acquaintance with organic chemistry, may be accepted in place of a part of the work of this course, provided that the time be spent in more advanced work in Biological Chemistry.

FIRST YEAR.

Biochemistry 1.— General Biological Chemistry. Lectures, Monday, Tuesday, Wednesday, Thursday, Friday, at 2; and laboratory, Monday, Tuesday, Wednesday, Thursday, Friday, 3–5.30, during the second half-year. Drs. Alsberg and Henderson, and Messrs. Black and McCrudden.

GRADUATE COURSES.

Biochemistry 2.—Metabolism. Lectures, five times a week during November and December. Professor Folin and Dr. Alsberg.

This course is designed to acquaint the student with the present knowledge and problems of the metabolism of man and lower animals, both normal and pathological.

Biochemistry 3.— The Technique of Metabolism Investigations. Laboratory practice. Professor Folin, Dr. Alsberg and Mr. McCrudden.

This course is designed to give the student a practical knowledge of the quantitative methods useful in conducting metabolism researches.

Biochemistry 4.— The Applications of Physical Chemistry to Biology. Lectures, five times a week during January. Dr. Henderson.

This course is designed to acquaint the student with the recent applications of physico-chemical theories and methods to Biology and medical science. The subjects to be discussed will include the theory of solution, the concentration law, catalysis, ionization, the theory of colloids, and the physico-chemical organization of the cell. The lectures will be supplemented by extended reading, and opportunity for practice in physico-

chemical methods will be offered. In preparation for this course an elementary acquaintance with Physical Chemistry, such as may be obtained from Chemistry 8, offered by the Division of Chemistry of the Faculty of Arts and Sciences, is desirable.

Biochemistry 20.—Research in Biological Chemistry. Half-courses, forenoons, throughout the year; all day or afternoons, first half-year.

Bacteriology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.
LANGDON FROTHINGHAM, M.D.V., Instructor in Bacteriology.
CALVIN G. PAGE, M.D., Assistant in Bacteriology.
HENRY J. PERRY, M.D., Assistant in Bacteriology.
ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.
EUGENE E. EVERETT, M.D., Assistant in Bacteriology.
EDWARD N. TOBEY, M.D., Assistant in Bacteriology.

CLEAVELAND FLOYD, M.D., Austin Teaching Fellow in Bacteriology.

Second year. — Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Text-books. — Muir and Ritchie. Abbott. Park.

Collateral Reading. — Sternberg. Heim. Migula. Kolle and Wassermann.

SECOND YEAR.

Lectures. Professor Ernst. Daily, except Saturdays, during October and November. 40

Laboratory work. Professor Ernst, and Drs. Frothingham, Page, Perry, Worthington, and Everett. Two to three hours daily during October and November.

Pathology.

WILLIAM T. COUNCILMAN, M.D., LL.D., Shattuck Professor of Pathological Anatomy.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

James H. Wright, M.D., S.D., Assistant Professor of Pathology.

Elmer E. Southard, M.D., Assistant Professor of Neuropathology.

S. Burt Wolbach, M.D., Instructor in Pathology.

Ernest E. Tyzzer, M.D., Assistant in Pathology. Frederick P. Gay, M.D., Assistant in Pathology.

THOMAS ORDWAY, M.D., Assistant in Pathology.

ALEXANDER R. ROBERTSON, M.D., C.M., Assistant in Pathology.

JOHN BRYANT, Jr., M.D., Assistant in Pathology and in Neuropathology.

Second year. — The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. Lectures and laboratory talks are given daily.

In the forenoons of the second and third weeks of December, Professor T. Smith gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are : -

(a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)

(b) Twenty laboratory exercises in surgical pathology. (See Surgery.) Text-books. — Ziegler, General and Special Pathology. Stengel, A Text-book of Pathology. Mallory and Wright, Pathological Technique.

Collateral Reading.—Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, The Animal Parasites of Man.

SECOND YEAR.

Lectures. Professor Councilman. Daily for fourteen weeks, October, November, December (first week only), and January. 84

Lectures. Professor T. Smith. One hour daily, second and third weeks of December. 12

Laboratory work. Professor Councilman, and Drs. Wolbach, Gay, and Robertson. Three hours daily during the forenoons of October, November, December (first week only), and January. 252

Demonstrations and laboratory work. Professor T. Smith. Two hours daily, second and third weeks of December. 24

Neuropathology. Asst. Professor Southard. Afternoons in December. 45 Surgical pathology. Asst. Professor Nichols. Afternoons in January. 60

Comparative Pathology.

Theobald Smith, M.D., George Fabyan Professor of Comparative Pathology.

Marshal Fabyan, M.D., Assistant in Comparative Pathology.

————, Assistant in Medical Zoölogy.

Paul A. Lewis, M.D., Austin Teaching Fellow in Comparative Pathology.

Second year.— A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth year.—The laboratory is open throughout the year to advanced and graduate students prepared to carry on original work in problems relating to the spontaneous and induced diseases of animal life, their causes and the relation of these causes to human diseases. Special facilities for the study of bacterial toxines, antitoxins and vaccines, and animal parasites are offered to the qualified student.

SECOND YEAR.

Lectures. Professor T. Smith. (H.M.S.) One hour daily, second and third weeks of December. 12

Demonstrations and laboratory work. Professor T. Smith, and Drs. Wolbach, Robertson, Fabyan, and Lewis. Two hours daily, second and third weeks of December. 24

Hygiene.

CHARLES HARRINGTON, M.D., Professor of Hygiene. GEORGE B. MAGRATH, M.D., Assistant in Hygiene.

Second year. — The instruction consists of lectures and demonstrations. Text-book. — Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Abbott, Hygiene of Transmissible Diseases.

SECOND YEAR.

Lectures and demonstrations. Professor Harrington. Three times a week, second half-year. 48

Materia Medica and Therapeutics.

Franz Peaff, M.D., Professor of Pharmacology and Therapeutics.

Maurice V. Tyrode, M.D., Instructor in Pharmacology.

Henry D. Lloyd, M.D., Assistant in Materia Medica.

Second and Third years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice, and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological actions of drugs, and their practical value as remedies.

Text-book. - A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR.

Pharmacology lectures. Professor Pfaff. Twice a week, February to May inclusive. 32

Materia Medica lectures. Dr. Tyrode. Once a week, February to May inclusive.

Voluntary laboratory work. Dr. Tyrode. Two hours once a week during April and May.

THIRD YEAR.

Lectures on Therapeutics. Professor Pfaff. Once a week, first halfyear. 16

The Theory and Practice of Physic.

REGINALD H. FITZ, M.D., LL.D., Hersey Professor of the Theory and Practice of Physic.

Henry A. Christian, M.D., Assistant Professor of the Theory and Practice of Physic.

Elbridge G. Cutler, M.D., Instructor in the Theory and Practice of Physic.

ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic.

Henry F. Hewes, M.D., Instructor in the Clinical Laboratory.

ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.

George S. C. Badger, M.D., Assistant in the Theory and Practice of Physic.

JOSEPH H. PRATT, M.D., Assistant in the Theory and Practice of Physic. HERMAN M. ADLER, M.D., Assistant in the Clinical Laboratory.

CHARLES L. OVERLANDER, M.D., Assistant in the Clinical Laboratory.
FRANCIS W. PALFREY, M.D., Assistant in the Theory and Practice of Physic.

WILLIAM B. ROBBINS, M.D., Assistant in the Clinical Laboratory.
ROGER I. LEE, M.D., Assistant in the Theory and Practice of Physic.

Second and Third years.— Lectures. Lectures on selected topics are given at the Medical School.

Clinical Exercises. — Clinical exercises in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Ward Visits. — Students in sections will visit patients at stated intervals in the wards of the Massachusetts General Hospital.

Section Teaching.—Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory of Clinical Pathology.—Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Text-books. — Osler, Practice of Medicine. Tyson, Practice of Medicine. Von Mering, Lehrbuch der Inneren Medizin. Sahli, Diagnostic Methods.

Collateral Reading. — Nothnagel, Encyclopedia of Practical Medicine. Allbutt, System of Medicine. Eulenberg, Lehrbuch der klinischen Untersuchungsmethoden. Kolle und Weintrand, Die Deutsche Klinik. Krehl, Principles of Clinical Pathology. Eulenburg, Real-Encyclopädie der gesammten Heilkunde. Gould, Medical Dictionary.

8

SECOND YEAR.

Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a week, second half-year.

Clinical lectures. Professor Fitz. (M.G.II.) Once a week, second half-year.

Clinical lectures. Dr. Cutler. (M.G.H.) Twice a week, second half-year.

Exercises in sections. Drs. Joslin, Stone, Badger, and Lee. Twice a week, second half-year, for each student.

32
Laboratory exercises. Five times a week, second half-year.

80

THIRD YEAR.

Lectures on selected topics. Professor Fitz. (H.M.S.) Twice a week, first half-year. 32

Clinical lectures. Professor Fitz. (M.G.H.)

Twice a week, first half-year. 32

Clinical lectures. Dr. Cutler. (M.G.H.) Once a week. 32

Ward Visits. Dr. Cutler. (M.G.H.) During the year. 8

Exercises in sections. Drs. Joslin, Stone, Badger, and Lee. First

Clinical Medicine.

- FREDERICK C. SHATTUCK, M.D., Jackson Professor of Clinical Medicine.
 GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine.
- HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.
- HENRY JACKSON, M.D., Instructor in Clinical Medicine.

half-year.

- RICHARD C. CABOT, M.D., Instructor in Clinical Medicine.
- JOHN W. BARTOL, M.D., Assistant in Clinical Medicine.
- James M. Jackson, M.D., Assistant in Clinical Medicine.
- FRANKLIN W. WHITE, M.D., Assistant in Clinical Medicine.
- WILLIAM H. ROBEY, Jr., M.D., Assistant in Clinical Medicine.
- WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.
- WILDER TILESTON, M.D., Assistant in Clinical Medicine.
- EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.
- FREDERICK T. LORD, M.D., Assistant in Clinical Medicine.

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second year. — The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week.

Clinical instruction for the entire class, twice a week, in diagnostic methods, diagnosis, and treatment.

Third year.— Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections, in the ward and out-patient departments, in connection with the Department of Theory and Practice. Each student attends forty-eight exercises during the year.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Simon, Clinical Diagnosis. Cabot, Physical Diagnosis. Forchheimer, Prophylaxis and Treatment of Internal Disease.

Collateral Reading. — Allbutt, System of Medicine. Twentieth Century Practice of Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Hare, Practical Diagnosis. Butler, Diagnostics of Internal Medicine. Le Fevre, Physical Diagnosis. Sahli, Diagnostic Methods.

SECOND YEAR.

- Clinics. Professor Shattuck (M.G.H.) and Dr. H. Jackson (B.C.H.).

 Twice a week, second half-year.
- Physical Diagnosis. Drs. Cabot, J. M. Jackson, and Lord (M.G.H.), Drs. Robey and Locke (B.C.H.), and Dr. (B.D.). Two exercises a week, second half-year, for each student.

THIRD YEAR.

- Clinics Professor Shattuck. (M.G.H.) Twice a week, first half-year; once a week, second half-year. 48
 - Assistant Professor Sears. (B.C.H.) Twice a week, first half-year; once a week, second half-year. 48
 - Dr. H. Jackson. (B.C.H.) Once a week, second half-year. 16
 - Dr. Bartol. (B.C.H.) Once a week, second half-year.

Pediatrics.

- THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.
- JOHN H. McCollom, M.D., Assistant Professor of Contagious Diseases.
- JOHN L. MORSE, M.D., Assistant Professor of Pediatrics.
- MAYNARD LADD, M.D., Instructor in Pediatrics.
- George A. Craigin, M.D., Clinical Instructor in Pediatrics.
- CHARLES H DUNN, M.D., Assistant in Pediatrics.
- HENRY I. BOWDITCH, M.D., Assistant in Pediatrics.

Third Year. - Lectures on selected topics preparatory for the clinical teaching are given early in the year. Clinical lectures are given from November to April inclusive at the Children's Hospital and at North Grove Street; the students are required to take an active part in the examination and discussion of the cases. A certain number of recitations on subjects selected as best taught in this way are held in the course of the year, and a large amount of case teaching occurs in the latter part of the year. Sectional teaching at the bedside is given from October to May inclusive, and comprises a large proportion of the year's instruction. During the first half-year the class in sections receives instruction three times a week in the contagious wards of the Boston City Hospital, where each student is shown and examines cases of diphtheria, scarlet fever, and measles. Each student is taught the technique of intubation, and has an opportunity to see intubation performed. A written report of the cases seen is required. In all the clinical and sectional teaching especial attention is paid to clinical therapeutics.

Text-book. - Rotch, Pediatrics.

Collateral Reading.—Keating, Cyclopaedia of the Diseases of Children. Northrup, American Edition of The Diseases of Children, by Ashby and Wright. Jacobi, Therapeutics of Infancy and Childhood. Holt, Diseases of Infancy and Childhood. Sachs, The Nervous Diseases of Children.

THIRD YEAR. Lectures. Professor Rotch. (H.M.S.) Once a week, October 3 to

December 19; twice a week, January 30 to February 25; once a
week, March 4 to April 1.
Dr. Ladd. (H.M.S.) Once a week, January 2 to January 23. 4
Clinical lectures. Professor Rotch. (Ch.H.) Once a week, October 4
to February 7.
Assistant Professor Morse. (North Grove St.) Once a week, Feb-
ruary 14 to March 27.
Recitations and Case Teaching. Dr. Morse. Once a week, March 2 to
March 30; twice a week, April 6 to May 26.
Section Teaching.
Assistant Professor McCollom. (S.D.B.C.H.) Three times a week,
first half-year.
Assistant Professor Morse. (Ch.H. and I.H.)
Dr. Craigin. (Ch.II.) 51
Dr. Ladd. (Ch.H. and I.H.)
Dr. Dunn. (Ch.H. and I.H.)
Dr. Bowditch. (Ch.H. and I.H.)
Each student receives 29 hours of section teaching.

Surgery.

The Division of Surgery is composed of the departments of surgery, clinical surgery, orthopedic surgery, and surgical pathology.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.

Maurice H. Richardson, M.D., Moseley Professor of Surgery.

Herbert L. Burrell, M.D., Professor of Clinical Surgery.

Edward H. Nichols, M.D., Assistant Professor of Surgical Pathology.

James G. Mumford, M.D., Instructor in Surgery.

JOHN B. BLAKE, M.D., Instructor in Surgery.

Howard A. Lothrop, M.D., Instructor in Surgery.

CHARLES A. PORTER, M.D., Instructor in Surgery.

Robert B. Greenough, M.D., Instructor in Surgery.

Robert W. Lovett, M.D., Instructor in Orthopedics.

Elliott G. Brackett, M.D., Instructor in Orthopedics.

Paul Thorndike, M.D., Instructor in Genito-Urinary Surgery.

JOEL E. GOLDTHWAIT, M.D., Instructor in Orthopedics.

GEORGE W. GAY, M.D., Lecturer on Surgery.

Samuel J. Mixter, M.D., Lecturer on Surgery.

George H. Monks, M.D., Lecturer on Surgery. Francis S. Watson, M.D., Lecturer on Genito-Urinary Surgery.

Francis B. Harrington, M.D., Lecturer on Gentile-Orthary

Charles L. Scudder, M.D., Lecturer on Surgery.

AUGUSTUS THORNDIKE, M.D., Assistant in Orthopedics.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

Fred B. Lund, M.D., Assistant in Surgery.

George W. W. Brewster, M.D., Assistant in Surgery.

James S. Stone, M.D., Assistant in Surgery.

ERNEST A. CODMAN, M.D., Assistant in Surgery

Joshua C. Hubbard, M.D., Assistant in Surgery.

Daniel F. Jones, M.D., Assistant in Surgery.

LE ROI G. CRANDON, M.D., Assistant in Surgery.

Walter C. Howe, M.D., Assistant in Surgery.

CHANNING C. SIMMONS, M.D., Assistant in Surgery.

Robert M. Green, M.D., Assistant in Surgery.

FRANK L. RICHARDSON, M.D., Austin Teaching Fellow in Surgery.

Instruction is given by systematic lectures, surgical anatomy lecture demonstrations, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third years. - A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technique; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. During the whole course surgical anatomy lectures will be given on special subjects in surgery. As early as may be in the second half of the second year, the course in surgical technique is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technique the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. In the month of February all the students will be assigned to serve one month during the year beginning April 1, 1908, at one or other of these hospitals. During the month of required service as surgical dresser the student will receive instruction in anesthesia. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in orthopedic surgery is given in the first half of the year and consists of lectures at the Medical School and of clinical exercises at the Children's Hospital.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Books recommended. — International Text-book of Surgery. Warren, Surgical Pathology. American Text-book of Surgery. Cheever, Lectures on Surgery. Dennis, System of Surgery. Von Bergmann and W. T. Bull, System of Surgery. König, Lehrbuch der Speciellen Chirurgie. Bryant, Operative Surgery. Jacobson (and Steward), Operations of Surgery. DaCosta, Modern Surgery. Eisendrath, Surgical Diagnosis. Scudder, Treatment of Fractures. Stimson, Fractures and Dislocations. Binnie, Operative Surgery. Wharton, Minor Surgery and Bandaging. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopädische Chirurgie. Keyes, Surgical Diseases of the Genito-Urinary Organs. Morton, Genito-Urinary Diseases and Syphilis. Mumford, Clinical Talks on Minor Surgery. Gould, The Technique of Operations on the Intestines and Stomach. Burrell and Blake, Case Teaching in Surgery.

SECOND YEAR.

- Laboratory course in Surgical Pathology. Assistant Professor Nichols.

 (H.M.S.) Twenty three-hour exercises during January. (See Pathology.)
- Clinical lectures in connection with the above course. Assistant Professor Nichols. (B.C.H.) Twelve exercises during January. 12
- Laboratory course in Surgical Technique. Dr. Lothrop. Six lectures to the entire class.

 6
 - Twelve two-hour exercises for each student during second half of second year. 24
- Systematic lectures, surgical anatomy lecture demonstrations, demonstrations, and recitations. Professors Richardson and Burrell.

 (H.M.S.) Four times a week.
- Clinical demonstrations in connection with the above lectures. Professor RICHARDSON (M.G.H.), Professor BURRELL, and Drs. J. B. BLAKE and LOTHROP (B.C.H.). Four times a week.

THIRD YEAR.

- Systematic lectures, surgical anatomy lecture demonstrations, demonstrations, and recitations. Professors Richardson and Burrell.

 (H.M.S.) Three times a week, first half-year.

 48
- Clinical demonstrations in connection with above lectures. Professors
 RICHARDSON (M.G.H.) and BURRELL (B.C.H.). Twice a week, first
 half-year.

 82
- Clinical lectures. Professor Richardson. (M.G.H.) Once a week, second half-year.

Professor Burrell, and Drs. Gay and Monks. (B.C.H.) Twice a week, second half-year.

Clinical exercises in surgical wards. Drs. Harrington, Lothrop, Codman, Lund, and Crandon. Twice a week for eight weeks, first halfyear.

Lectures and demonstrations. Orthopedic surgery. Professor Bradford.

(H.M.S. and Ch. H.) Once a week, first half-year. 16

Lectures. Genito-Urinary Surgery. Dr. Thorndike. (H.M.S.) Once a week for eight exercises in October and November.

Section teaching at the Hospitals. One hour a day for six days. 6

Case Teaching. Dr. J. B. BLAKE. (H.M.S.) Once a week, beginning March 1.

Obstetrics and Gynaecology.

CHARLES M. GREEN, M.D., Professor of Obstetrics.

FRANKLIN S. NEWELL, M.D., Instructor in Obstetrics and Gynaecology.

MALCOLM STORER, M.D., Assistant in Gynaecology.

WILLIAM P. GRAVES, M.D., Assistant in Gynaecology.

Ernest B. Young, M.D., Assistant in Gynaecology.

Howard T. Swain, M.D., Assistant in Obstetrics.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics.

JAMES R. TORBERT, M.D., Assistant in Obstetrics.

OBSTETRICS.

Third year.—Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, to receive clinical instruction on at least one of them, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Text-book. — J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Reynolds and Newell, Practical Midwifery. Hirst, A Text-book of Obstetrics. Lusk, The Science and Art of Midwifery. Jellett, Manual of Midwifery.

THIRD YEAR.

Lectures on the Theory and Practice of Obstetrics. Professor Green. (H.M.S.) $\it Twice~a~week.$ 64

Recitations. Dr. Newell. (H.M.S.) Once a week.

Conferences. Professor Green, and Drs. Newell, Swain, Friedman, and Torbert. (H.M.S.) Once a week. 32

Practical instruction in Clinical Obstetrics. Drs. Swain, Friedman, and Torbert. Throughout the year, i.e., every student must receive instruction on one of the cases of labor which he attends, and may ask for instruction on his other cases, if he desires.

GYNAECOLOGY.

Third Year.—Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Text-book. - Dudley, Principles and Practice of Gynaecology.

Collateral Reading.—Skene, Diseases of Women. Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women. Ashton, Practice of Gynaecology.

THIRD YEAR.

Lectures or recitations. Professor Green. (H.M.S). Twice a week, second half-year. 32

Dermatology and Syphilis.

John T. Bowen, M.D., Edward Wigglesworth Professor of Dermatology.

Abner Post, M.D., Assistant Professor of Syphilis.

Charles J. White, M.D., Instructor in Dermatology.

Harvey P. Towle, M.D., Assistant in Dermatology.

HARVEY P. TOWLE, M.D., Assistant in Dermatology.

C. Morton Smith, M.D., Assistant in Syphilis.

Frederick S. Burns, M.D., Assistant in Dermatology.

DERMATOLOGY.

Third year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Collateral Reading.—Stelwagon, Duhring, Hyde, Robinson, Crocker. Kaposi, v. Ziemssen, Besnier, Van Harlingen, Jackson, Taylor,

THIRD YEAR.

Lectures, demonstrations, and recitations on diseases of the skin. Professor
Bowen. (H.M.S.) Once a week during October and November. 8
Clinical Dermatology. Professor Bowen. (M.G.H.) Once a week. 32
Clinical exercises. Drs. Towle and Burns. (M.G.H.) In sections,
twice a week, February and March.

SYPHILIS.

Third year. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR.

Lectures. Assistant Professor Post. (H.M.S.) Once a week, December and January.

Clinical lectures. Assistant Professor Post and Dr. Smith. (B.D.)

Once a week, April and May.

8

Clinical exercises. Assistant Professor Post and Dr. Smith. (B.D.)

In sections, twice a week, second half-year. Each student attends
six two-hour exercises.

Neurology and Psychiatry.

James J. Putnam, M.D., Professor of Diseases of the Nervous System.

Philip Coombs Knapp, M.D., Clinical Instructor in Diseases of the Nervous System.

EDWARD W. TAYLOR, M.D., Instructor in Neurology.

EDWARD COWLES, M.D., LL.D., Instructor in Mental Diseases.

George T. Tuttle, M.D., Clinical Instructor in Mental Diseases.

WILLIAM NOYES, M.D., Clinical Instructor in Mental Diseases.

GEORGE A. WATERMAN, M.D., Assistant in Neurology.

NEUROLOGY.

Second year.—Instruction is given during December on the pathology of the nervous system. The course is illustrated by lantern projections of histological preparations and by work in the laboratory.

Third year.—During the first half-year one exercise a week, and during the second half-year two exercises a week, are given at the Massachusetts General Hospital. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system supplementary to the work in general internal medicine. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards. (d) Work in the Case-system. Short examinations and conferences will be held at intervals during the year.

Text-book.—Putnam and Waterman, Studies in Neurological Diagnosis.

Collateral Reading.—Oppenheim, Diseases of the Nervous System
(English translation, 2d edition). Gowers, Diseases of the Nervous System

tem. Dana, Text-book of Nervous Diseases (latest edition). Herter, Diagnosis of Nervous Diseases (latest edition). Mills. The Nervous System and Its Diseases. Church and Petersen, Nervous Diseases (latest edition).

SECOND YEAR.

Pathology of the Nervous System. Assistant Professor Southard. (H.M.S.) Fifteen exercises during December. (See Pathology.) 45

THIRD YEAR.

Lectures, Demonstrations, and Clinical exercises. Professor Putnam, and Drs. Taylor and Waterman. (M.G.H.) Once a week, first half-year; twice a week, second half-year.

48

PSYCHIATRY.

Third year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Boston Insane Hospital.

Text-books. — Kraepelin, Psychiatrie (English translation, Defendorf — Clinical Psychiatry). Clouston, Clinical Lectures on Mental Diseases. Folsom, Monograph in Pepper's System of Medicine. Berkley, Mental Diseases. Regis, Manual of Mental Medicine. Paton, Psychiatry.

Collateral Reading.—Krafft-Ebing, Text-book of Insanity. Church and Peterson, Nervous and Mental Diseases. Brower and Bannister, Insanity. James, Psychology. Tuke, Dictionary of Psychological Medicine. Baldwin, Dictionary of Philosophy and Psychology. Hall, Adolescence. Barr, Mental Defectives.

THIRD YEAR.

Lectures. Dr. Cowles. (H.M.S.) Once a week, second half-year. 16 Clinical exercises. Dr. Cowles. (B.I.H.) At stated intervals. 3-4

Ophthalmology.

Myles Standish, M.D., Assistant Professor of Ophthalmology.
Edwin E. Jack, M.D., Instructor in Ophthalmology.
Alexander Quackenboss, M.D., Instructor in Ophthalmology.
Henry H. Haskell, M.D., Assistant in Ophthalmology.
Edmund W. Clap, M.D., Assistant in Ophthalmology.
Fred M. Spalding, M.D., Assistant in Ophthalmology.

Third year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - DeSchweinitz. Fuchs. Hansell and Sweet.

Collateral Reading. — Loring, On the Ophthalmoscope. Landolt, Refraction and Accommodation. Norris and Oliver, System of Diseases of the Eye. Haab, Atlas of the External Diseases of the Eye.

THIRD YEAR.

Lectures. Assistant Professor Standish. (H.M.S.) Twice a week, in October and November. 16

Clinical exercises. Drs. Jack, Quackenboss, Haskell, Clap, and Spalding. (E. and E.I.) In sections, ten hours a week, first half-year. Every student receives fourteen hours of instruction. 14

Otology.

CLARENCE J. BLAKE, M.D., Walter Augustus Lecompte Professor of Otology.

EUGENE A. CROCKETT, M.D., Instructor in Otology.

PHILIP HAMMOND, M.D., Instructor in Otology.

HARRIS P. MOSHER, M.D., Assistant in Otology.

DAVID H. WALKER, M.D., Assistant in Otology.

Third year.— Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - Brühl and Politzer. Bacon.

Collateral Reading. — Politzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Blake and Reik.

THIRD YEAR.

Lectures. Professor Blake. (H.M.S.) Twice a week, February and March; once a week, April and May.

Clinical exercises. (E. and E.I.) In sections, two hours, five times a week, second half-year. Every student attends ten exercises. 20

Laryngology and Rhinology.

Algernon Coolidge, Jr., M.D., Assistant Professor of Laryngology.

Frederic C. Cobb, M.D., Instructor in Laryngology.

J. Payson Clark, M.D., Assistant in Laryngology.

Joseph L. Goodale, M.D., Assistant in Laryngology.

ROCKWELL A. COFFIN, M.D., Assistant in Laryngology.

HARRIS P. Mosher, M.D., Assistant in Laryngology.

Third year. — Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has one lecture a week during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

THIRD YEAR.

Lectures. Assistant Professor Coolidge. (H.M.S.) Once a week, second half-year.

Clinical exercises. Assistant Professor Coolidge, and Drs. Clark, Goodale, Mosher (M.G.H.), Coffin (B.C.H.) and Cobb (B.D.).
In sections, second half-year. Twelve exercises for each student. 12

Legal Medicine.

Legal Medicine is no longer taught as a separate required study; but the several departments will give instruction in the medico-legal aspects of their respective subjects. Dr. G. B. Magrath, Instructor in Legal Medicine, will offer this year a voluntary or elective course in the subject, concerning which definite information will be posted later on the bulletin boards.

Municipal Sanitation.

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

THIRD YEAR. OPTIONAL COURSE.

Lectures. Dr. Durgin. (H.M.S.) Twice a week, February and March.

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year. The two half-courses elected for the first two or the last two months of each half-year must be formed on the same plan to avoid conflict.

Neuropathology, medicine, pediatrics, surgery, and obstetrics offer electives on the all-day plan.

Anatomy, histology, embryology, bacteriology, clinical surgical pathology, genito-urinary surgery, orthopedies, surgical pathology, gynaecology, dermatology, neurology and psychiatry, ophthalmology, otology, and laryngology offer electives on the half-day plan.

Physiology, comparative physiology, biochemistry, bacteriology, pathology, clinical pathology, hygiene, and theory and practice offer electives on both plans.

The several half-courses offered by any one department are not necessarily graded courses, but represent hours of clinical, technical, and research work.

Students who intend to become general practitioners are advised to elect the following group of subjects:—

Medicine .													3 1	ialf-	courses.
Pediatries													1	6.6	66
Surgery .													1	6.6	66
Obstetries													1	6.6	66
Neurology	and	l I	syc	hia	try	,	do	rı	na	tol	08	у			
and sypl	illis,	OI	gy	nac)eo	log	gy.						1	66	66
Anatomy,	hist	olo	gy,	en	nbı	ryc	olo	gy	,	ph	ys	i-			
ology, bio	oche	mis	stry	, ba	cte	eri	olo	g	7,1	nei	ar	0-			
patholog	V, 0	rth	ope	dies	3. C	or]	hv	gio	ene	9			1	66	66

Students interested in surgery are advised to elect the following group of subjects:—

Medicine		2	half-c	ourses
Surgery		2	6.6	66
Genito-urinary surgery		1	66	66
Anatomy		1	44	66
Gynaecology or clinical surgic	eal pathology	1	66	66
Orthopedics or surgical patho	logy	1	66	6.6

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned. Special arrangements will be made for students desirous of paying exclusive attention to other subjects than those listed, for example, pharmacology and comparative pathology.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Board of Administration, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before September 15.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

Anatomy. - Half-courses, afternoons, throughout the year.

Anatomy I.....October-November; December-January; February-March.

Anatomy II April-May.

Comparative Anatomy. — Half-courses, forenoons or afternoons.

- (1) Comparative Anatomy. Forenoons or afternoons.
 - I. October-November.
 - II. December-January.
 - III. February-March.
 - IV. April-May.
- (2) Embryology. Half-courses, afternoons, second half-year.
 - V. February-March.
 - VI. April-May.
- (3) Histology. Half-course, afternoons, second half-year.
 - VII. April-May.
- (4) Cytology. Half-course.
 - VIII. October-November, forenoons. IX. December-January, afternoons.
- TA. December—samuary, arternoons.

Physiology. — Half-courses, forenoons, afternoons, or all day, throughout the year.

Comparative Physiology. — Half-courses, forenoons, afternoons, or all day, throughout the year.

Biological Chemistry (Biochemistry 20). — Half-courses, forenoons throughout the year; all day or afternoons, first half-year.

Bacteriology. — Half-courses, forenoons or afternoons, second half-year.

Pathology. — (1) Pathology. Half-courses, forenoons or all day, second half-year.

(2) Neuropathology. Half-courses, all day, throughout the year.

Comparative Pathology. — No courses offered, but special arrangements can be made with the department.

Pharmacology. — No courses offered.

 ${\it Medicine.}$ — (1) Clinical Medicine. Half-courses, all day, throughout the year.

- (2) Theory and Practice. Half-courses, forenoons or all day, throughout the year.
- (3) Clinical Pathology. Half-courses, forenoons or all day, first half-year.

Pediatrics. - Half-courses, all day, throughout the year.

Clinical Surgical Pathology. — Half-courses, forenoons, throughout the year.

- Surgery. (1) Surgery. Half-courses, all day, throughout the year.
 - (2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.
 - (3) Orthopedics. Half-courses, afternoons, throughout the year.
 - (4) Surgical Pathology. Half-courses, afternoons, December to May, inclusive.

Obstetrics and Gynaecology: -

(1) Obstetrics. Half-courses, all day, throughout the year

(1) Obbiculios.	LEWIT COULT	scog will diegg of or	ii oug iio	at the four
(2) Gynaecology.	4.6	forenoons	, "	66
Dermatology and Syphilis.	66	66	6.6	66
Neurology and Psychiatry.	6.6	66	6.6	66
Ophthalmology.	4.6	66 Se	econd ha	alf-year.
Otology.	4.6	" tl	rougho	ut the year.
Laryngology.	4.6	· · · fi	rst half-	year.
Hygiene.	44	44 a	fternoor	is, or all day,
			through	houttheyear.

DIAGRAMS OF FOURTH-YEAR ELECTIVES

Half-courses. - All-day Plan.





Physiology.
Comparative Physiology.
Biochemistry.*
Pathology.**

Neuropathology.**
Clinical Medicine.
Theory and Practice.

Clinical Pathology.

Pediatrics.
Surgery.
Obstetrics.
Hygiene.

Half-courses .- Half-day Plan.

	Oct.	Nov.	DEC.	JAN.
A.M. 9-1				
P.M. 2-6				

	FEB.	MAR.	APR.	MAY.
ì		1		
		'		
1				

Forenoons.

Comparative Anatomy.

Cytology.*

· Physiology.

Comparative Physiology.

Biochemistry.

Bacteriology.**

Pathology.**

Theory and Practice. Clinical Pathology.*

Clinical Fathology.

Genito-Urinary Surgery.

Gynaecology.

Dermatology and Syphilis.

Neurology and Psychiatry.

Ophthalmology.**

Otology.

Laryngology.*

Hygiene.

Afternoons.

Anatomy.

Comparative Anatomy.

Histology.**

Embryology.**

Cytology.*

Physiology.

Comparative Physiology.

Biochemistry.*

Bacteriology.**

Orthopedics.

Surgical Pathology.

Hygiene.

Group of Courses Recommended for the General Practitioner.

	Oct.	Nov.	DEC.	JAN.	F	EB.	MAR.	APR.	MAY.
A.M. 9-1 P.M. 2-6	Medicine	Medicine) Medicine	l Pediaatries 1	- 0	Surgery	Obstetries		1 2
	Medi	cine					3 hal	f-cours	SPS.

Medicine .						٠	٠		٠						۰		0	nau-	courses.
Pediatrics																	1	66	66
Surgery .																	1	66	6.6
Obstetrics																	1	6.6	66
(1) Neurol	og	у	an	d	ps	y	chi	atı	ry,	, (de	rm	at	olo	g	7,			
or gy	'n	160	ol	og,	y												1	6.6	66
(2) Anaton	ay.	, .	his	to	log	sy.	, ∈	em	br	yc	olo	gy	,	ph	ys	i-			
ology	7, 1	oio	ch	en	is	tr	y, l	a	ete	ri	olo	ogy	7, 1	ne	ur	0-			
pathe	olo	gy	,	ort	he	p	edi	es	, (r	h	ygi	ier	e			1	6.6	46

^{* =} first half-year.

^{** =} second half-year.

Group of Courses Recommended to Men interested in Surgery.

	Oct.	Nov.	DEC.	JAN.		FEB.	MAR.	APR.	MAY.
4.M. 9-1	Medicine	Medicine	Surgery	Surgery		G. U. S	Surgery	1	
P.M.	Med	Med	Sur	Sur		Ana	tomy	2	
	Medie	cine .					. 2 hal	f-course	es.
	Surge	ery					. 2 "	66	
	Genit	o-urina	rv surg	erv .			. 1 "	6.6	
					l surgical pa				
	. /	v	0.0		l pathology			66	

GENERAL PLAN OF INSTRUCTION

ANATOMY. Half-courses, afternoons, throughout the year.

(1) Anatomy I. October and November; December and January; February and March.

This is a dissecting course in which the three parts of the body are to be dissected. It will be under the direction of the demonstrator. Each student will be quizzed once a week and there will be a certain amount of supervision by the assistants.

N. B. - No one can take this course who has not passed his first-year anatomy.

(2) Anatomy II. April and May.

This is not to be considered a course for professional anatomists, but one suited to the practitioner. It will consist of topographical anatomy, the study of frozen sections, and of special parts of anatomy; in the selection of the latter every effort will be made to meet the wishes of those taking the course. For instance, some can give particular attention to the joints, others to the circulation, etc. Though there will be no systematic dissection the cadaver will be used for study and for special dissections. This elective will be under the immediate supervision of the professor of anatomy.

Comparative Anatomy. Half-courses, forenoons or afternoons, throughout the year.

(1) Comparative Anatomy. Four half-courses. These courses may be taken either consecutively or separately. The general morphology of vertebrates and the anatomy of important types will be studied.

- (2) Embryology I. February and March. Elementary laboratory course, especially correlated with anatomy and pathology.
- (3) Embryology II. April and May. Proresearch work. Each student will be given a special piece of work to verify and extend some important recent investigation.
- (4) *Histology*. April and May. General laboratory course offering training in methods. Each student must select in advance one of the three following forms of this course:—
- (a) General Histology, intended specially as preparation for advanced work in anatomy and pathology.
 - (b) General structure and development of the nervous system.
 - (c) General structure and development of the urogenital system.
 - (5) Cytology. October and November, forenoons.

 December and January, afternoons.

Physiology. Half-courses, forenoons, afternoons, or all day, throughout the year.

The elective work in physiology will be of two classes: —

- (a) Detailed study in any special subject in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.
- (b) Investigation. Students, properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Comparative Physiology. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

BIOCHEMISTRY. — Research in Biological Chemistry. Half-courses, fore-noons, throughout the year; all day or afternoons, first half-year.

A student may elect work in any field of biochemical research for which he is qualified by his previous training. Students are advised to elect this course during November and December, so that they may be able to include in it Biochemistry 2 (cf. p. 25). For detailed information they are referred to the pamphlet of the Department of Biological Chemistry.

Bacteriology. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of four kinds, including (a) instruction in methods of diagnosis depending upon bacteriological procedures; (b) instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils; (c) instruction in methods of opsonic-index work, with practical application; (d) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

- (1) Pathology. Half-courses, forenoons or all day, second half-year. The work will consist of (a) training in the technical methods used in pathology; (b) attendance at postmortem examinations at the various hospitals, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.
- (2) Neuropathology. Half-courses, all day, throughout the year. The course is given at the Danvers Insane Hospital, and involves (a) attendance at the daily case-readings of the hospital staff, with analysis and observation of cases presented (one to three daily); (b) work in the wards upon selected cases; (c) laboratory work. Each student is assigned the tissues and protocol of a neuropathological case, the report of which will involve personal employment of the approved technical methods in neuropathology, as well as a variable amount of library work. When elected for more than a month, the course may involve work on a neuropathological problem. The course is intended as preparatory for neurological or psychiatrical work or as auxiliary to work on general medicine.

Hygiene. Half-courses, forenoons, afternoons, or all day, throughout the year.

The course will consist in part of laboratory instruction and in part of special research. The laboratory instruction will comprise the analysis of

air, soils, water and foods, the investigation of disinfectants, etc., and epidemiology.

Before electing this subject, students are advised to consult with the head of the department, and satisfy him that they are properly qualified by previous training.

Medicine. — I. Clinical Medicine. Half-courses, all day, throughout the year.

The morning will be devoted to clinical work in various out-patient departments, and the afternoon to work in the wards at the Massachusetts General Hospital. One afternoon each week will be devoted to a ward visit and a demonstration in clinico-pathology. The written report of four cases will be required (two from the out-patient work and two from the ward work), and a thesis containing original work of some character, the length of which will vary according to the number of half-courses elected. Eight such courses are offered, and the student may elect as many as he chooses.

- (1) Clinical Instruction. This will be of two kinds:-
- (a) Work as assistant in the out-patient department, where, in addition to the routine work, selected cases are demonstrated during the morning by a member of the department.
- (b) Work in wards where special cases are assigned for study. Demonstrations, by a member of the department, are given each afternoon of the more unusual cases.
- (2) Didactic Teaching. One exercise each week is devoted to practical therapeutics. The use and effect of drugs in selected cases is considered. One exercise will be devoted to demonstrations in gross pathology given jointly by members of the pathological and medical departments. In this exercise the autopsy material of the previous week is studied at the Massachusetts General Hospital in relation with the clinical history, physical signs, and clinical diagnosis of each case.
- (3) Original Thesis. Each student shall present before graduation an original thesis which will embody clinical, laboratory, statistical, or literary work. The subject of the thesis shall be approved, and the work done under the supervision of some member of the medical department selected by the student.
- II. Theory and Practice. The electives in medicine offered by the Department of Theory and Practice consist of
- (a) Half-courses, all day, throughout the year, at the Massachusetts General Hospital. Each half-course of one month is limited to four students.

- (b) Half-courses, forenoons, throughout the year, at the Carney Hospital. Each half-course of two months is limited to four students. Each two of the latter will alternate between the medical wards and the outpatient department. The work will consist in a consecutive study of ambulatory and ward patients with the application of appropriate laboratory methods. There will be also an opportunity for the medical observation of surgical cases before and after operation. Participation in autopsies will constitute a part of the work. These courses will be given under the supervision of Assistant Professor Christian.
- (c) Research in the Laboratory of Clinical Pathology on the half-day or all-day plan, first half-year.

PEDIATRICS. Half-courses, all day, throughout the year.

The work will consist of clinical instruction of cases in the wards and out-patient departments of the Infants' Hospital, Children's Hospital and the Contagious wards of the South Department. Students will be assigned to the various wards and out-patient departments by the Professor of Pediatrics and will work under his supervision, and in so far as is practicable the work will be assigned in reference to their individual needs and wishes. The students may also attend the clinical lectures given by Dr. Rotch in the third year. The direction of the clinical work will be carried out by the other members of the department. One half of each section will work in the mornings in the out-patient department of the Children's Hospital and the other half in the out-patient department of the Infants' Hospital under the direction of a member of the department. The whole section will spend two afternoons a week at the South Department under Dr. McCollom, and two afternoons in the medical wards of the Children's Hospital under the supervision of an instructor. Two clinical exercises on diseases of the ear in infants and children will be given each month through the courtesy of Dr. Crockett. Four exercises on the Roentgen Ray will be given each month by Dr. A. W. George. Four exercises on the opsonic index will be given each month by Dr. C. Floyd. The remaining time will be spent on reading in connection with some subject assigned to each student, and on which a written report will be required.

CLINICAL SURGICAL PATHOLOGY. Half-courses, forenoons, throughout the year.

The course will consist of a study of clinical cases with especial reference to the pathology of the lesions present and the use of the microscope in immediate diagnosis. The work will be supplemented with conferences and demonstrations in the Warren Museum.

SURGERY: -

(1) Surgery. Half-courses, all day, throughout the year.

The instruction will consist of ward work, the examination of cases, the recording of histories, the establishing of diagnoses, the etherization of patients, the dressing of injuries, wounds, and fractures, the close observation of operations, seeing the progress of a surgical patient, and the end results of cases. The out-patient work will consist of the establishing of diagnoses, the treatment of cases under direction, and the recording of histories. This work will be carried out at the hospitals, in the wards and out-patient departments, and will occupy a part of each day, and will be from time to time directed and supervised by instructors.

The afternoons will be devoted to library, museum, and literary work, surgical pathology, case teaching, regional surgery, and operative surgery. Seminars and conferences will be held as occasion requires. The student will be required to account for his daily work.

(2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(3) Orthopedic Surgery. Half-courses, afternoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(4) Surgical Pathology. Half-courses, afternoons, December to May, inclusive.

The course is for students who desire to learn methods of original investigation in any line of the pathology of surgical diseases, especially in the line of experimental work. No formal instruction is given, but students will be assisted and directed in methods and technique. The cost of materials used in experimental work must be met by the student. A four months' course is advised.

OBSTETRICS AND GYNAECOLOGY: -

(1) Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge

at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the second half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

(2) Gynaecology. Half-courses, forenoons, throughout the year.

The course will be given in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, which affords ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be expected to study, and report on, pathological specimens removed by operation.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

Dermatology and Syphilis. Half-courses, forenoons, throughout the year.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique.

NEUROLOGY AND PSYCHIATRY. Half-courses, forenoons, throughout year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows: -

- (1) Daily systematic conferences on neurological topics.
- (2) History-taking, and personal examination of patients at the outpatient departments of the Massachusetts General and Boston City Hospitals.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.
- (5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, e. g., Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

The instruction in psychiatry will be as follows:-

- (1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.
- (2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.
- (3) Clinical instruction at the Boston Insane Hospital one forenoon in each week, including clinical demonstrations, and the individual study of especially assigned cases, which will also be reported and discussed at the regular evening conferences.

This course in psychiatry is open to a limited number of students, and may be taken independently of that in neurology. Several exercises will be held in common by those electing psychiatry and neuropathology.

Ophthalmology. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital. OTOLOGY. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, nose, and nasopharynx in addition to thorough clinical instruction.

LARYNGOLOGY. Half-courses, forenoons, first half-year.

The course is held daily at the Massachusetts General Hospital. One half of the morning will be given to work in the clinic, and the second half to systematic clinical instruction, operations, anatomy, pathology, and the literature of the subject.

EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The Mid-Year and June examinations are for those only who are members of the School at the time, and for those entitled to apply for the degree. The September examination is for those only who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows: -

First year. — Anatomy * (3 hrs.), Histology and Embryology * (3 hrs.), Physiology (3 hrs.), Biological Chemistry (3 hrs.).

Second year. — Bacteriology * (1 hr.), Pathology * (2 hrs. written, 1 hr. practical), Hygiene (1 hr.).

Third year. — Materia Medica and Therapeutics* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical, as follows: Surgery, 15 min.; Orthopedic Surgery, 15 min.; Surgical Technique, 15 min.; Surgical Pathology, 15 min., taken in second year), Clinical Surgery (1 hr. written,

^{*} The examinations in these subjects are held at the end of the first half-year.

1 hr. practical, as follows: Clinical Surgery, 45 min.; Genito-Urinary Surgery, 15 min.), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), S philis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth year. — The nature of the examinations is determined by each department. The student's credit is based on his daily written record of work, and on a practical or written examination at the end of each course, or on all combined.

In addition to the above examinations every student is required: -

To dissect the three parts of the body to the satisfaction of the demonstrator;

To receive practical instruction in anaesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

To take charge of and report on six cases in Obstetrics, and to receive instruction on at least one of them;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES.

Degree of Doctor of Medicine.

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine cum lande will be given to candidates who have obtained an average of eighty per cent., or over, in all the required examinations.

^{*} The examinations in these subjects are held at the end of the first half-year.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before May I of the year in which they propose to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of June.

A graduate of another Medical School of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned, but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

Degree of Master of Arts.

The degree of Master of Arts is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the fifteenth day of January.

FEES AND EXPENSES.

The fees are:—For matriculation, five dollars; for instruction, two hundred dollars for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars. During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique; and a deposit of five dollars is required to cover breakage in

^{*} The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

the course in Clinical Pathology, the balance of this deposit to be returnable at the end of the year. In the fourth year a charge of three dollars is made for material used in the course in Operative Surgery. A deposit of two dollars with the Dean will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year. There is a graduation fee of twenty dollars for the degree of A.M.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Payment of Fees.

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and fifty-four dollars; each second-year student is required to pay in the same manner one hundred and twenty-eight dollars; and all other students are required to pay, in the same manner, the sum of one hundred and twenty dollars. Fourth-year students electing Surgery are required to pay a charge of three dollars for material in Operative Surgery. The remainder of the tuition fee - eighty dollars each for all students - must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of fifty dollars, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. No degree will be conferred till all dues to the School are discharged.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at various prices can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

CLINICAL ADVANTAGES.

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various Clinical Subjects those advantages which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital. — During the past year, more than five thousand patients were treated in the wards, and over thirty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, Diseases of the Nervous System, and Ophthalmology. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital.—During the past year, about nine thousand cases were treated in its wards, and twenty-two thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly

two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital. — More than seven hundred patients were confined during the last year in the Hospital. In the out-patient department, nearly two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — More than forty thousand patients were treated at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital.—The wards of the Hospital are devoted entirely to children under two years of age. About three thousand children of all ages are treated annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than seven hundred cases were treated in the wards and about seventy-six hundred in the outpatient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital. — During the past year two hundred and five patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, — pathological, chemical, and physiological, with psychological methods, — work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston Insane Hospital. — During the past year one thousand and eighty-seven patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Emergency cases are received; the whole number of patients admitted last year was four hundred and sixteen, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary. — Over thirty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.—This Hospital is designed particularly for the treatment of chronic diseases. It has two hundred and fifty beds, with an average daily number of patients of about two hundred and thirty. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent. of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Carney Hospital. — During the past year there were treated at this hospital about nine hundred ward patients and nearly four thousand new out-patients in the surgical service; over six hundred ward patients and more than three thousand new out-patients in the medical service; two hundred operative ward patients and twelve hundred new out-patients in the orthopedic service; and one hundred operative ward cases and ten thousand out-patients in the ophthalmic service. More than eight hundred cases, covering a large variety of diseases, were operated on by the surgical service. The surgical, medical, and orthopedic services are under the direction of single heads with continuous service, who with assistants manage both the house and out-patient departments.

Clinical instruction will be given in connection with the surgical, medical, orthopedic, and ophthalmic services, and opportunity will be afforded for a limited number of qualified men to engage in clinical investigation under the direction of the heads of services and their assistants. The orthopedic clinic offers special opportunities for the study of chronic joint affections in the adult.

Students are also permitted to visit the Free Hospital for Women on application to the physicians on duty.

There are more than sixty appointments annually for Internes in the various hospitals, and nearly as many more for Assistants in the outpatient departments. Appointments for the Massachusetts General and Boston City Hospitals are for terms of one to two years (according to the service chosen); for the Boston Lying-in Hospital for six months; and for the Free Hospital for Women for nine months.

WARREN ANATOMICAL MUSEUM.

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor Emeritus from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. William Fiske Whitney.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES.

Medical School students who are engaged in research work may have access to the special libraries of the various departments on application to the persons in charge. These libraries are seven in number, consisting of three large combined departmental libraries in buildings B, C, and D, and of four small separate departmental libraries in building E. The total number of books in all the libraries is 12,788, and of pamphlets 23,820. In addition 306 medical journals and society publications are taken, of which a few, however, are duplicates. The students have a small general medical library for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School. The Boston Public Library, which contains a large collection of medical books, is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library has nearly 35,000 volumes, about half of which are periodicals, and 30,000 pamphlets. Nearly 500 current journals and transactions are on file. There is a good reference library of modern

books, including encyclopaedias, systems, etc. The Library is open daily, except Sundays and holidays, from 9 a.m. to 6 p.m. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August. It has always been free to medical students.

FELLOWSHIPS AND SCHOLARSHIPS.

FELLOWSHIPS.

BULLARD FELLOWSHIPS. In 1891, WILLIAM STORY BULLARD, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established with a yearly income of two hundred and twenty-five dollars each:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.
THE JOHN WARE MEMORIAL FELLOWSHIP.
THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before October 1.

AUSTIN FELLOWSHIPS. In 1900, four teaching fellowships, of five hundred dollars each, were established from the income of the Austin Fund.

Proctor Fund. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

SCHOLARSHIPS.

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

Barringer Scholarships. Two, known as the Edward M. Barringer Scholarship No. 1, and the Edward M. Barringer Scholarship No. 2, and having a yearly income of three hundred dollars and two hundred dollars respectively, from a bequest of Edward M. Barringer, will be awarded to deserving students, preferably those of the fourth class.

David Williams Cheever Scholarship, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

ISAAC SWEETSER SCHOLARSHIP was founded in 1892 by Mrs. Anne M. Sweetser. The income of two hundred and fifty dollars is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ORLANDO W. DOE SCHOLARSHIP. The bequest of ORLANDO WITHERSPOON DOE (A.B. 1865, M.D. 1869) was five thousand dollars. One half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

CHARLES PRATT STRONG SCHOLARSHIP, with an income of one hundred dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

The Lewis and Harriet Hayden Scholarship for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income is two hundred and twenty-five dollars.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

JOSEPH EVELETH SCHOLARSHIPS. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and

fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to such needy and deserving students of the Medical School as the Medical Faculty shall annually recommend.

HILTON SCHOLARSHIPS. Two Scholarships, with an income of two hundred and twenty-five dollars each, were founded in 1897 from a bequest of William Hilton.

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

The John Thomson Taylor Scholarship, with an income of two hundred dollars, was founded in 1899 by Mrs. Frederic D. Philip in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

LUCIUS F. BILLINGS SCHOLARSHIP, with an income of two hundred dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings.

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The Joseph Pearson Oliver Scholarship, with an income of three hundred and twenty-five dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. (Harvard, 1871), to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

A fund of five thousand dollars, the gift of an unknown donor, was established in 1905, the income of which shall be payable every year to such meritorious and needy students in the Harvard Medical School as shall be recommended by the Administrative Board of the School.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Medical Faculty may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is payable every other year to one or more

meritorious students needing assistance. The next payment will be made in 1908.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

All applications for scholarships or pecuniary aid, except for the Cheever and Hayden Scholarships, must be handed to the Dean on or before June 1.

Applications for the Cheever and Hayden Scholarships must be handed to the Dean on or before *November 30*. These scholarships are open only to students who are members of the school at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Dean.

PRIZES

Boylston Medical Prizes.—These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1907 no prizes were awarded.

For 1908 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy*, *Physiology*, or *Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology.* The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before January 1, 1908.

For 1909 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology. The subject to be chosen by the writer.

Dissertations on these subjects must be sent to the same address as above on or before January 1, 1909.

PRIZES. 67

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence.

Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

- 1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
- 2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: William F. Whitney, M.D., President; Harold C. Ernst, M.D., Secretary; Franz Pfaff, M.D., Theobald Smith, M.D., William T. Porter, M.D., Franklin Dexter, M.D., Edward H. Nichols, M.D.

The address of the Secretary of the Boylston Medical Committee is Harold C. Ernst, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before Novem-

ber 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Toppan and Sumner Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue.

COURSES FOR SPECIAL STUDENTS.

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work.

In addition, certain Departments offer courses, not a part of the regular curriculum, but specifically designed for special students; as follows:—

ANATOMY. Professor DWIGHT, Dr. J. WARREN, and Assistants.

- (1) Course for artists, teachers, and others. (Essentially the regular first-year course with dissection.)
 - (2) Special instruction and opportunities for research.

PHYSIOLOGY. Professor CANNON.

Physiological Research.

COMPARATIVE PHYSIOLOGY. Professor Porter.

Physiological Research.

BIOLOGICAL CHEMISTRY. Drs. ALSBERG and HENDERSON.
Biochemical Research.

PHARMACOLOGY. Professor PFAFF and Dr. Tyrode.

Pharmacological Research.

BACTERIOLOGY. Professor Ernst and Drs. Frothingham and Page.

- (1) Elementary courses beginning at other times than October 1 and February 1, for groups of not fewer than four students.
 - (2) Advanced instruction to groups of not fewer than four students.
- (3) Research course for advanced students. Desks will be assigned at any time.

CLINICAL PATHOLOGY. Assistant Professor WRIGHT.

- (1) Research in bacteriology and pathology.
- (2) Instruction in bacteriological and pathological technique and in diagnosis by laboratory methods.
- (3) Weekly demonstrations in pathological anatomy in conjunction with Dr. RICHARD C. CABOT, who will discuss the clinical aspects of the cases.

Comparative Pathology. Professor Theobald Smith. Research. Pathogenic micro-organisms of animal life.

HYGIENE. Professor HARRINGTON and Dr. MAGRATH.

- (1) Analysis of water and sewage.
- (2) Analysis of foods and the detection of adulterants.
- (3) Analysis of air and soils.
- (4) Inspection of meats and other foods.
- (5) Examination of disinfectants.
- (6) Research.

SURGERY. Professor BURRELL and Dr. HUBBARD.

- (1) Special courses in surgical technique.
- (2) Research.

These courses will be given in the Laboratory for Surgical Research that has been recently established under the direction of Professor Burrell and Dr. Hubbard. Application may be made to either of those gentlemen. The laboratory is equipped with the necessary apparatus for surgical operations on animals and special courses of an elementary character in the technique of operation can be provided, or opportunity for research work on surgical problems may be given to persons who are satisfactorily qualified.

Hours and Fees.

Applicants for the above courses should make arrangements as to time and fees with the respective heads of departments. They should then register and pay their fees at the Dean's office.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged, for graduates of recognized medical schools, an improved plan of instruction, embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions:—

Massachusetts General Hospital,
Boston City Hospital,
Boston Dispensary,
Boston Dispensary,
Massachusetts Eye and Ear Infirmary,
Boston Lying-in Hospital,
Free Hospital for Women.

Infants' Hospital,

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

Instruction in the graduate courses is, with but few exceptions, entirely distinct from that of the undergraduate department of the School; but students of the former are admitted also to all the regular lectures (not clinical) of the latter, without extra charge, during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June.

FEES.

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address Dr. William L. Richardson, *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

SUMMER COURSES OF INSTRUCTION.

During the summer of 1908, courses in many branches of practical and scientific medicine will be given by teachers in the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories of the School by the instructors in charge. These courses are open only to graduate and undergraduate students of medical schools recognized by the Faculty of Medicine, and to such others as the Dean of the Faculty approves.

A list of the Summer Courses will be announced early in the Spring. For further information address Dr. William L. Richardson, Dean, Harvard Medical School, Longwood Avenue, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1907-08.

Subject.	Instructor.	. PLACE.	No. of Exercises.	Time.*	FEE.
Anatomy					
1. Special Anatomy Instruction	Prof. Dwight	Medical School	:	Special	Special.
2. Anatomy of the Joints	Prof. Dwight	Medical School	12	Special	\$25.
3. Topographical and Applied Anat.	Prof. Dwight	Medical School	12	Special	25.
4. Dissection Courses	Dr. J. Warren	Medical School	:	After Oct. 1	25.
5. Anatomy of Nose and Throat	Dr. Mosher	Medical School	12	Special	25.
6. Genito-Urinary Anatomy, Male	Dr. Flagg	Medical School	5	After Feb. 1	25.
7. Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	8-9	Feb., Mar., April	25.
Comparative Anatomy					
8. a. Comparative Anatomy	Prof. Minot and Dr. Williams Medical School	Medical School	43	Oct., Nov.	30.
b. Comparative Anatomy	Prof. Minot and Dr. Williams Medical School	Medical School	43	Dec., Jan.	30.
c. Comparative Anatomy	Prof. Minot and Dr. Williams Medical School	Medical School	43	Feb., Mar.	30.
d. Comparative Anatomy	Prof. Minot and Dr. Williams Medical School	Medical School	43	Apr., May	30.
9, a. Cytology b. Cytology	Prof. Minot and Dr. Williams Medical School Prof. Minot and Dr. Williams Medical School	Medical School	43	Oct., Nov. Dec., Jan.	30.
10. Elementary Embryology	Dance Arrived T	Medical School	43	Feb., Mar.	30.
11. Proresearch Embryology	and Dr. Bremer	Medical School	43	Apr., May	30.
12. Histology		Medical School	43	Apr., May	30.
Physiology					
13. Detailed Study in Physiology	Prof. Cannon	Medical School	43	Oct. to May	Special.
14. Investigation in Physiology	Prof. Cannon	Medical School	43	43 Oct. to May	Special.

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Special.	Special	Special.	Special.	Special.	Special.	Special.		25.		Special.	25.		Special.		50.	35.
Oct. to May	Snocial	Directal	Special	Special	Special	Nov., Dec.		Special		Special	Oct.—June		Special		Special	Special
		:	:	:	24	24		:		:	25		:		:	:
Medical School	Modinal School	Medical School	Medical School	Medical School	Medical School	Medical School		Medical School		Med. Sch., Boston City & Mass. General Hosps.	Danvers Insane Hospital		Medical School		Medical School	Medical School
Prof. Porter	Dre Aldwere and Handarean		Drs. Alsberg and Henderson	Drs. Alsberg and Henderson	Dr. Henderson	Dr. Alsherg		Prof. Ernst		Profs. Councilman, Mallory, and Wright	Prof. Southard		Prof. Smith		Prof. Harrington	Prof. Harrington
15. Experimental Work in Physiology	Biological Chemistry	417 Theducing of Motol of the	117. recrimque of Metabolism Investiga- tion	†18. Research in Biological Chemistry	†19. Physical Chemistry in Med. Science	†20. Normal and Path. Metabolism	Bacteriology	†21. Research and General Laboratory Work in Bacteriology	Pathology	22. Research and General Laboratory Work in Pathology	23. Neuropathology	Comparative Pathology	†24. Research in Comparative Pathology Prof. Smith	Hyglene	†25. Hygiene, general	†26. Hygiene, special courses

* Time includes months named. When time and fee are "special," arrangements must be made with the instructor.

Subject.	Instructor.	PLACE.	No. of Exer- cises.	Time.*	FEE.
Pharmacology					
†27. Research in Pharmacology	Prof. Pfaff and Dr. Tyrode	Medical School	:	Special	Special.
Medicine					
†28. Diseases of Digestive Tract	Dr. Hewes	Mass. Gen. Hosp. and Medical School	12	Oct., Nov., Dec.	\$20.
†29. a. Clinical Pathology b. Clinical Pathology	Drs. Hewes and Adler Drs. Hewes and Adler	Medical School	40+	Oct., Nov.	40.
130. Clinical Medicine	Dr. Jackson	Mass. General Hospital	18		15.
†31. a. Diseases of the Digestive Organs	Dr. White	B. C. H., O. P. D.	12	Nov.	15.
b. Diseases of the Digestive Organs	Dr. White	B. C. H., O. P. D.	12	Dec.	15.
c. Diseases of the Digestive Organs	Dr. White	B. C. H., O. P. D.	12	Dec.	15.
32. Clinical Medicine	Dr. White	B. C. H., O. P. D.	27	Jan.	30.
†33. a. Clinical Diagnosis, Laboratory Methods and Therapeutics	Drs. White and Locke	В. С. Н., О. Р. D.	26	Nov.	30.
b. Clinical Diagnosis, Laboratory Methods and Therapeutics	Drs. White and Locke	B. C. H., O. P. D.	26	Dec.	30°
34. Medical Research	Dr. Pratt	Medical School	:	Oct.—Jan.	Special.
:35. a. Clinical Medicine	Dr. Locke	B. C. H., O. P. D	24	Nov.	25.
b. Clinical Medicine	Dr. Locke	B. C. H., O. P. D.	24	Dec.	25.
Surgery					
General Surgery of Children, 8 courses	Prof. Burrell, Drs. H. W. Cushing and J. S. Stone	Children's Hospital	30	Oct.—May	25.
37. Surgical Pathology	Asst. Prof. Nichols	Med. Sch., and B. C. II.	20+	20+ Jan.	25.

38. Research in Surgical Pathology	Asst. Prof. Nichols	Medical School	:	Nov. to March	Special.
+39. a. Genito-Urinary Surgery	Dr. Paul Thorndike	Boston City Hospital	48+	Feb., March	25.
b. Genito-Urinary Surgery	Dr. Paul Thorndike	Boston City Hospital	48+	Apr., May	25.
40. Major Surgery	Dr. J. B. Blake	Boston City Hospital	+ 02	Jan. 1 to Aug. 1, Sep.	25.
41. Major Surgery	Drs. Harrington and Codman	Mass. General Hospital	20	Oct.—Jan.	25.
42. a. Diseases of Rectum and Anus	Dr. Faulkner	B. C. H. and Med. Sch.	12	Oct.	25.
	Dr. Faulkner	B. C. H. and Med. Sch.	12	Nov.	25.
43. Abdominal Surgery	Dr. Lund	Boston City Hospital	24	Oct.—Jan.	25.
44. Surgery of the Joints	Dr. Codman	Mass. General Hospital	24	Dec.	25.
†45. Abdominal Surgery	Dr. Hubbard	Medical School		Oct. to June	Special.
†46. a. Minor Surgery	Dr. Hubbard	Boston City Hospital	24+	Sept.	25.
b. Minor Surgery	Dr. Hubbard	Boston City Hospital	24+		25.
c, Minor Surgery	Dr. Hubbard	Boston City Hospital	24+		25.
d. Minor Surgery	Dr. Hubbard	Boston City Hospital	24+	Jan.	25.
†47. a. Major Operative Surgery	Dr. Crandon	Boston City Hospital	20+		20.
0	Dr. Crandon	Boston City Hospital	20+		20.
	Dr. Crandon	Boston City Hospital	20+		20.
d. Major Operative Surgery	Dr. Crandon	Boston City Hospital	20+		20.
e. Major Operative Surgery	Dr. Crandon	Boston City Hospital	20+	May	20.
†48. a. Fractures and Dislocations	Dr. Crandon	Boston City Hospital	12+		20.
b. Fractures and Dislocations	Dr. Crandon	Boston City Hospital	12+		20.
c. Fractures and Dislocations	Dr. Crandon	Boston City Hospital	12+		20.
d. Fractures and Dislocations	Dr. Crandon	Boston City Hospital	12+		20.
e. Fractures and Dislocations	Dr. Crandon	Boston City Hospital	12+	May	.70.
+49. a. Genito-Urinary Surgery	Dr. Crandon	Boston City Hospital	24+	Oct.	20.
b. Genito-Urinary Surgery	Dr. Crandon	Boston City Hospital	24+	Jan.	20.
50. Major Oper, Technique on Animals	Dr. Cheever	Special	:	Special	25.

* Time includes months named. When time and fee are "special," arrangements must be made with the instructor.

† Women admitted.

† Women admitted.

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	TO BECT	INSTRUCTOR.	PLACE.	Exer-	TIME.*	FEE.
				cises.		
51.	51. General Surgery	Drs. Munro and Bottomley	Carney Hospital	24	Throughout year	\$25.
+55	+52. General Surgery	Drs. Scudder and Davis	Mass. General Hospital	24+	Feb. to June	25.
53.	53. a. Clinical and Operative Surgery	Dr. F. Cobb	Mass. General Hospital	48+		30.
	b. Clinical and Operative Surgery	Dr. F. Cobb	Mass. General Hospital	48+	Dec., Jan.	30.
+2+	754. Diagnostic Rontgen Radiology	Dr. Brown	Long Island Hospital	00	Oct. to May	25.
ŤÕÕ.	155. Diagnostic Rontgenology	Dr. Brown	Carney Hospital	S	Oct. to May	25.
156.	156. Rontgen Therapeutics	Dr. Brown	Instructor's Laboratory	16	Special	25.
157.	757. Theory and Practice of the Röntgen Ray, 8 courses	Dr. Brown	Instructor's Laboratory	15	Oct.—May	25.
	Orthopedic Surgery					
+558.	758. General Orthopedic Surgery, 4 courses	Profs. Bradford & Nichols, Drs. Lovett, Goldthwait, Pratt, Thorndike, Osgood, Soutter, Brown, & George	Children's Hospital Mass. General Hospital Carney Hospital	24+	Oct.—May	50.
	Obstetrics					
59.	59. Clinical Obstetrics, 8 courses	The Department Staff	Boston Lying-in Hosp.	26	OctMay	25.
.09	. Clinical Obstetrics, 8 courses	Address Prof. C. M. Green	Boston Lying-in Hosp.	:	Special	25.
61.	61. Operative Obstetrics, 8 courses	The Department Staff	Medical School	5	Oct.—May	25.
62.	. Clinical and Operative Obstetrics	Address Prof. C. M. Green	Boston Lying-in Hosp. and Medical School	:	Oct.—May	25.
	Gynaecology					
63	63. A Gynaecology, 8 courses B Gynaecology, out-patient, 8	Prof. C. M. Green, Drs. Newell, Young, Friedman	Boston City Hospital Boston City Hospital	12 26	Oct.—May Oct.—May	25.
	courses A and B Gynaecology	and Mason	Boston City Hospital	26	Oct.—May	25.

25.	25.	25.	25.	Special.		25.		25.	50.		25.		15.	20.	20.	20.	20.	50–75.		25.
June	Oct.—Dec.	JanMar.	Oct.—June	Oct —June		Oct.—May		Oct.—May	Oct.—May		Oct., Nov., Dec., Jan.		Oct.—June	Oct.—June	Oct.—June	Oct.—June	Feb.—June	Oct.—June		Oct.—May
12	12	15	12	:		26		24	48		24			24+	24+	24+	24+	:		:
Boston Dispensary	St. Elizabeth's Hospital	Carney Hospital	Free Hospital for Women	Free Hospital for Women	And the same of th	Infants', Children's & Boston City Hospital		Mass. General Hospital	Mass. General Hospital		Boston Dispensary		Mass. General Hospital	Mass. General Hospital	Mass, Ge eral Hospital	Mass. General Hospital	Boston City Hospital	Med. Sch., Mass. Gen. & LongIsland Hosps.		McLean and Boston
Dr. Storer	Dr. Storer	Dr. Storer	Dr. Graves	Dr. Graves		Profs. Rotch, McCollom, & Morse, Drs. Craigin, Ladd, Dunn, and Bowditch		Prof. Bowen, Drs. White, Towle and Burns	Prof. Bowen, Drs. White, Towle and Burns		Asst. Prof. Post and Dr. C. M. Smith		Prof. Putnam, Drs. Taylor and Waterman	Prof. Putnam	Dr. Taylor	Dr. Waterman	Dr. Knapp	Dr. Taylor		Drs. Cowles, Tuttle and
†64. Gynaecology	165. Gynaecology	166. Operative Gynaecology	67. Clinical Gynaecology	68. Gynaecological Pathology	Pediatrics	169. Pediatrics, 8 courses	Dermatology	70. Dermatology, 4 courses	71. Advanced Dermatology, 4 courses	Syphilis	72. Syphilis, 2 courses	Neurology	173. Advanced Clinical Neurology	774. Clinical Neurology	175. Clinical Neurology	76. Clinical Neurology	777. Clinical Neurology	178. Laboratory and Clinical Neurology	Psychiatry	79. Psychiatry

* Time includes months named, When time and fee are "special," arrangements must be made with the instructor.

† Women admitted.

			No. of		
Subject.	INSTRUCTOR.	PLACE.	Exer-	TIME.*	Fee.
Otology					
80. Research in Otology	Prof. Blake		:	Sept.—May	Special.
781. Operative Otology	Dr. Hammond	Eye and Ear Infirmary	25	Feb.—Apr.	\$25.
82. Oper. Surg. of Temp. Bone	Dr. Walker	Medical School		Special	25.
Ophthalmology					
83. Ophthalmology	Asst. Prof. Standish and Dr. Jack	Mass. Charitable Eye and Ear Infirmary	48+	48+ Feb. and March	50.
84. Ophthalmology, 2 courses	Dr. Quackenboss	M. C. E. and E. I.	26	Oct., Nov.	25.
85. Ophthalmology	Dr. Clap	M. C. E. and E. I.	24+	Dec.—March	30.
86. Ophthalmology	Dr. Spalding	M. C. E. and E. I.	:	Special	25.
Laryngology and Rhinology					
87. Laryngology and Rhinology, 2 courses	Prof. Coolidge, Drs. Cobb, Goodale, and Mosher	Mass. General Hospital	48	Oct., Nov., Dec., Jan.	25.
†88. Laryngology and Rhinology, 2 courses	Prof. Coolidge, Drs. Clark and Mosher	Mass. General Hospital	24	Feb.—March	20.
†89. Laryngology and Rhinology, 2 courses	Prof. Coolidge, Drs. Clark and Goodale	Mass. General Hospital	24	Apr.—May	20.
190. a. Adenoid and Tonsil Operations	Prof. Coolidge, Drs. Clark, Goodale, and Mosher	Mass. General Hospital	+ ∞	Feb.	10.
b. Adenoid and Tonsil Operations	Prof. Coolidge, Drs. Clark, Goodale, and Mosher	Mass. General Hospital	+ ∞	March	10.
c. Adenoid and Tonsil Operations	Prof. Coolidge, Drs. Clark, Goodale, and Mosher	Mass. General Hospital	+ ∞	8+ April	10.
d. Adenoid and Tonsil Operations	Prof. Coolidge, Drs. Clark, Goodale, and Mosher	Mass. General Hospital	+ ∞	8+ May	10.

Time includes months named. When time and fee are "special," arrangements must be made with the instructor. Women admitted.

TABULAR VIEW

OF

SUMMER COURSES OF INSTRUCTION

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1907

No.	Subject	Instructor	Place	Exer- cises	Begins	Ends	Days	Hour	Fee
	Anatomy								
-	Anatomy of Nose and Throat	Dr. Mosher	Medical School	12	July 1		Aug. 31 Special	:	\$25
C1	An. of female genito-urinary organs Dr. Wadsworth	Dr. Wadsworth	Medical School	2	July 1	Aug. 31	M.Tu.W.Th.F.	10-12	20
00	Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	9	June 1	1, Sept. 29	•		25
	Histology and Embryology								
4	Element, Histology & Embryology	Dr. Lewis	Medical School	20	July 1	July 1 July 26 Daily	Daily	2-6	20
	Physiology								
10	Practical Physiology	Prof. Cannon	Medical School	26	July 1	1 July 31 1 July 31	31 Daily 31 Daily	9-5	40
}	Biological Chemistry			1			Ī		
9	Research in Biological Chemistry	Dr. Alsberg	Medical School	:		:	•	:	:
1-	Biological Chemistry	Messrs, Black and McCrudden	Medical School	22	July 1	July 31	1 July 31 M.Tu.W.Th.F.	3-6	25
	Bacteriology								
00	8 Bacteriology	Dr. Page	Medical School	22	July 1	1 July 31	31 M.Tu.W.Th.F.	:	30
0	Bacteriology	Dr. Perry	Medical School	22	Aug. 1	1 Aug. 31	31 M. Tu. W. Th. F.		30
10	10 Infect. Diseases of Animals	Dr. Frothingham	Medical School				Special		50
-	The second of th	Dr Flord	Medical School	24	June 3	June 3 June 29 Daily	Daily	9-12	30

Medicine (continued) 23 Diseases of the Digestive Organs Dr. White 24 Dietetics & Diseases of Metabolism Dr. White 25 Clinical Medicine Dr. Smith 26 Clinical Medicine Dr. Pratt 27 a. Clinical Medicine Dr. Pratt 28 Therapeutics, Clinical Diagnosis Dr. Lord 30 a. Clinical Pathology Dr. Lord 6 b. do. do. 6 c. do. Dr. Adler 6 c. do. do. 6 do. do. 7 do. do. 80 c. Lab. Courses in Clin. Diag. Dr. Overlande 80 c. do. do. 81 Pediatrics Dr. Morse 82 Pediatrics Drs. Morse 83 Pediatrics Dr. Ladd 84 Pediatrics Dr. Ladd 85 Pediatrics Dr. Ladd 86 Pediatrics Dr. Dunna	Instructor	Place	No. of Exer- cises.	No. of Exer- cises.	Ends	Days	Hour	Fee
Diseases of the Digestive Organs Dietetics & Diseases of Metabolism Clinical Medicine a. Clinical Medicine b. do. c. do. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. do.								
Dietetics & Diseases of Metabolism Clinical Medicine Clinical Medicine a. Clinical Medicine b. do. c. do. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. do. do. do. do. do. do. do. Pediatrics		City Hospital	12	June 8	3 June 29		10-12	15
Clinical Medicine a. Clinical Medicine b. do. c. do. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. do. a. Lab. Courses in Clin. Diag. b. do. do. do. do. Pediatrics		City Hospital	12	June 8	3 June 29		10-12	15
Clinical Medicine a. Clinical Medicine b. do. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Cinical Pathology b. do. c. do. do. do. do. do. do. Pediatrics	Dr. Smith	Mass. Gen. Hosp.	25	June 1	1 June 31	Daily	:	30
a. Clinical Medicine b. do. c. do. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. do. do. d. Lab. Courses in Clin. Diag. b. do. do. do. Pediatrics	Dr. Smith	Mass. Gen. Hosp.	12	July 1	1 July 31	31 Tu. Th. F.	:	25
c. do. c. do. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. do. do. do. do. do. do. Pediatrics	Dr. Pratt	Mass. Gen. Hosp.	26	July 1	1 July 31	31 Daily	9-1	30
c. Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. a. Lab. Courses in Clin. Diag. c. do. do. do. do. do. Pediatrics	do.	do.			1 Aug. 31 Daily	Daily	9-1	30
Therapeutics, Clinical Diagnosis and Laboratory Methods a. Clinical Pathology b. do. c. do. do. do. do. do. Pediatrics	do.	do.	56	Sept. 2	2 Sept. 30 Daily	Daily	9-1	30
ul Pathology do. courses in Clin. Diag. do. do. Pediatrics		Mass. Gen. Hosp.	25	June 1	June 1 June 29 Daily	Daily	94-4	90
do. do. Pediatrics	Dr. Adler do.	Medical School do.	20	July 1	1 July 26 5 Aug. 30	1 July 26 M.Tu.W.Th.F. 5 Aug. 30 M.Tu.W.Th.F.	2-5	25 25
do. do. Pediatrics	Dr. Overlander	Medical School	22		June 30	June 30 M.Tu. W.Th.F.	:	25
do. do. Pediatrics	do.	do.	22	July 1	1 July 31	31 M.Tu.W.Th.F.		25
Pediatrics	do.	do.	22	Aug.	1 Aug. 31	1 Aug. 31 M.Tu. W.Th. F.		25
				1				
	Dr. Morse	Infants' Hospital	12	June	3 June 28 M. W.	M. W. F.	9-12	20
	Drs. Morse and Dunn	Children's Hosp. & Infants' Hosp.	27	Aug. 1	1 Aug. 31 Daily	Daily	9-1	90
	Dr. Ladd	Infants' Hospital	13	June 4	June 29	4 June 29 Tu. Th. S.	11	20
	Dr. Dunn	Infants' Hospital	26	July 1	July 1 July 31 Daily	Daily	9-1	90

		10 10 10 10 10 10 10 10 10 10 10 10 10 1	c momen s Hosp.	7.1	June	4 June	c 20	29 To Th. S.	ri.	11	20
dos		do.	do.	12	Sept.	3 Sep	1. 24	3 Sept. 28 Tu. Th. S.	÷.	11	20
36 Pediatrics		Dr. George	Children's Hosp.	13	Aug.	1 Aug	2. 31	1 Aug. 31 M. W. S.		3-5	25
Surgery	Y :										
ajor, Clinical and Surgery, with, du Surgical Pathology	Major, Clinical and Operative Surgery, with, during July, Surgical Pathology	Surgery, with, during July, Drs. Lund and Nichols Surgeal Pathology	City Hospital	22	June	3 Jur	le 29	3 June 29 Daily		10-12	25
do.		do.	do.	77	July	1 July	y 31	Daily		10-12	25
do.		do.	do.		Aug.	1 Au	g. 31	1 Aug. 31 Daily		10-12	25
do.		do.	do.	24	Sept.	2 Sept.	t. 30	30 Daily		10-12	25
ajor Surgery, Pat nosis, Operative Tec Treatment	hology, Diag- chnic and After	tajor Surgery, Pathology, Diag. Drs. Mumford and nosis, Operative Technic and After Greenough Treatment	Mass. Gen. Hosp.	24	July	1 Sep	t. 29	1 Sept. 29 Daily		9-12	25
Major Surgery		Dr. Blake	City Hospital	20	June	3 June		29 M. Tu.W. Th.F.	V.Th.F.		25
do.		do.	do.	20	July	1 July		31 M.Tu.W. Th.F.	7. Th.F.		25
do.		do.	do.	20	Sept.	2 Sept.	t. 30	M. Tu.W. Th.F.	V. Th.F.		25
General Surgery		Drs. Porter and Jones	Mass. Gen. Hosp.	25	June	1 Jui	le 29	1 June 29 Daily		10-1	25
do.		do.	do.	25	July	1 July	y 31	31 Daily		10-1	25
do.		do.	do.	25	Aug.	1 Aug.	g. 31	31 Daily		10-1	25
do.		do.	do.	25	Sept.	2 Sept.	t. 30	30 Daily		10-1	25
Major Surgery		Dr. Lothrop	City Hospital	26	Sept.	2 Sept.	t. 30	30 Daily		10	25
General Surgery		Dr. Munro	Carney Hospital	56	June	1 Sept.		29 Daily		9-12	25
Genito-Urinary Surgery	urgery	Dr. Thorndike	City Hospital	26	July	1 July		31 Daily		10-12	15
do.		do.	do.	56	Aug.	1 Aug.	3. 31	Daily		10-12	15
Gen. Surgery of Children	Children	Dr. Stone and volunteer Children's Hosp.	Children's Hosp.	30	June	1 Jun	e 30	1 June 30 Daily			25
do.		do.	do.	30	July	2 July	y 31	31 Daily			25
do.		do.	do.	30	Aug.		3. 31	1 Aug. 31 Daily			25
do.		do.	do.	30	Sept.	1 Sep	t. 29	1 Sept. 29 Daily			25

Fee	20	20	25	25 25 25	25 25 25	20 20	25 25 25	99
Hour	10.30-		$9\frac{1}{2}-1$	$\begin{array}{c} 9\frac{1}{2} - 12\frac{1}{2} \\ 9\frac{1}{2} - 12\frac{1}{2} \\ 9\frac{1}{2} - 12\frac{1}{2} \end{array}$	10	10-3	8 P.M. 8 P.M.	:::
Days		·	Daily		29 M. W. F. 30 M. W. F. 28 M. W. F.	30 Th. 31 Th. 29 Th.	1 June 29 M. W. F. 2 July 30 M. W. F. 3 Sept. 28 M. W. F.	Daily
Ends	1 Aug. 31 Daily	:	1 June 29 Daily	1 July 31 Daily 1 Aug. 31 Daily 2 Sept. 30 Daily	1 June 29 2 July 30 3 Sept. 28	1 June 30 2 July 31 3 Sept. 29	1 June 29 2 July 30 3 Sept. 28	June 30 July 31
Begins	June 1	:	June 1	July 1 Aug. 1 Sept. 2	June 1 July 2 Sept. 3	June 1 July 2 Sept. 3	June 1 July 2 Sept. 3	June 1 June 30 Daily July 1 July 31 Daily
No. of Exer- cises	20	4	25	26 26 26	12 12 12	16 16 16	15 15	26 26
Place	Mass. Gen. Hosp.	Medical School	Boston Dispensary	Boston Dispensary do.	Carney Hospital do.	Long Island Hosp. do.	Instructor's Lab. do. do.	Children's Hosp. Boston Dispensary, Warren Auseum, Carney Hospital, Mass. Gen. Hosp.
Instructor	Dr. Codman	Dr. Cheever	Dr. O'Neil	Dr. Perry do. do.	Dr. Brown do. do.	Dr. Brown . do. do.	Dr. Brown do. do.	Prof. Bradford, and Drs. Lovetti, Brackett, Goldthwait, A. Thorndike, Dane, Nichols, Osgrood, Soutter, Fratt, Brown, Bölim & George do.
Subject	Minor Surgery and Major Surgical Diagnosis in Women and Child'n	Fechnique of Major Operative Surgery on Animals	Genito-Urinary Surgery	a. Genito-Urinary Diseases b. do. c. do.	 a. Surgical Diagnostic Radiology b. do. do. c. do. 	 a. Surgical Diagnostic Radiology b. do. c. do. 	a. Theory and Practice of the Roy do. c. do.	Orthopedic Surgery a. Orthopedic Surgery b. do.
No.	45 N	7 46 I	47 6	84	49	50 0	51 a	52 a

93 25	Aug. 1 Aug. 31 M. W. F.	14	do.	do.	do.
91 25	July 1 July 31 M. W. F.	13	Eye and Ear Inf.	Dr. Spalding	Clinical Ophthalmology
9-12 25		26	do.	do.	do.
9-12 25	Aug. 1 Aug. 31 Daily	26	Eye and Ear Inf.	Dr. Quackenbess	Clinical and Operative Ophthal. Dr. Quackenbess
					Ophthalmology
9-12 25	Aug. 1 Aug. 30 Daily	13	Mass. Gen. Hosp.	Dr. Burns	Clinical Dermatology
9-12 25	Sept. 2 Sept. 30 Daily	26	do.	do.	do.
9-12 25	July 1 July 31 Daily	26	do.	do.	do.
9-12 25	June 1 June 29 Daily	26	Mass. Gen. Hosp.	Dr. White	Clinical Dermatology
					Dermatology & Syphilis
95 20	Sept. 1 Sept. 29 Iu. In. S.	2	40.		
	2 Aug.	13	do.	do.	do.
91 25	June 1 June 29 Tu. Th. S.	13	City Hospital	Dr. Mason	Minor Gynaecology
91 30	Sept. 3 Sept. 29 M. W. F.	12	City Hospital	Dr. Friedman	Gynaecology — Diagnosis and Treatment
10-12 25	July 2 July 31 Tu. Th. S.	13	City Hospital	Dr. Friedman	
91 30	June 1 Aug. 31 Daily	12	City Hospital	Dr. Young	Diagnosis and Treatment
					Gynaecology
_	Sept. 2 Sept. 29 Daily	25	do.	Dr. Torbert	do.
11 20	Aug. 1 Aug. 31 Daily	27	do.	do.	do.
	1 July	26	do.	Dr. Swain	do.
-	1 June	56	Lying-in Hospital	Dr. DeNormandie	Clinical Obstetries
30	May 1 Oct. 1 Daily	:	Lying in Hospital	Torbert.	Cament Obstetries
		1			Obstetrics

Fee			25 25 25 25	25	25		15	15 15 15	15		25 25 25
Hour		:		9-11	::		10-12	10-12 10-12 10-12	9-11		9-12 9-12 9-12
Days			31 Daily 30 Daily 31 Daily	Daily Daily			Daily	Daily Daily Daily	June 1 July 31 M. W. F. Aug. 1 Sept. 30 M. W. F.		Daily Daily Daily
Ends		July 31	1 June 30 Daily 1 July 31 Daily	1 June 30 Daily 1 July 31 Daily	June		June 1 Sept. 30 Daily	1 July 31 Daily 1 Aug. 31 Daily 1 Sept. 30 Daily	July 31 Sept. 30		1 June 30 Daily 2 July 31 Daily 1 Aug. 31 Daily
No. of Exer- cises		June 1 July	May June July	June July 1	June		June 1	July Aug. Sept.	June Aug.		June July 2
No. of Exer- cises		:	26 26 26	26	12 12		24	2 4 4 2	24		26 26 26
Place			Eye and Ear Inf. do.	Eye and Ear Inf.	Medical School		Mass. Gen. Hosp.	do. do.	City Hospital do.		Mass. Gen. Hosp. do.
Instructor		Prof. Blake	Dr. Crockett do. do.	Dr. Walker do.	Dr. Walker do.		Drs. Clark, Goodale, or Mass. Gen. Hosp. Greene	do.	Dr. Coffin do.		Dr. Baldwin do. do.
Subject	Otology	Research in Otology	 a. Operative Otology b. do. c. do. 	a. Clinical Otologyb. do.	a. Oper. Surg. of Temp. Bone b. do.	Laryngology	a. Laryngology	b. do. c. do. d. do.	a. Rhinology and Laryngology b. do.	Neurology	 a. Clinical Neurology b. do. c. do.
No.		63 B	64 0	65 0	99		67 a	003	68 9		69

TABULAR VIEW

OF

UNDERGRADUATE COURSES

TABULAR VIEW OF UNDERGRADUATE COURSES.

FIRST YEAR - First Half-Year.

October, January. Anatomy. Lecture. Anatomy. Lecture. Anatomy. Lecture. November, December. Dissection and Demonstrations. November, December. October. Osteology. November, December, Descention and Demonstrations. Osteology. Street and Demonstrations. Dissection and Special Sense Organs. Lectures, Denominations, and Recitations.	Monday. Tuesday.	Wednesday.	THUBSDAY.	FRIDAY.	SATURDAY.
	October, January. Anatomy. Lecture. Norember, December. Dissection and Demonstrations.	Oct., Nov., Dec., Jan. Anatomy. Lecture.	October, e. Anatomy. November, Dissection and I	January. Lecture. December. Demonstrations.	Oct., Nov., Dec., Ilistology. January, 9-11. Anatomy. Lecture.
January. Brain and Special Sense Organs. Lectures, Demonstrations, and Recitations.		October. Osteology. vember, December, Janus	ary.		Oct., Nov., Dec., Jan. 11-1. Anatomy. Lecture.
The state of the s	Br	January. in and Special Sense Org., Demonstrations, and R.	ans. ecitations.		
	4				

October, November, December. Histology. Lecture.	Histology. Laboratory.
2-2.30	2.30-6

FIRST YEAR. — Second Half-Year. Physiology. February.

	Monday.	TUES	TUESDAY.	Wednesday.	THURSDAY.	FRIDAY.	SA	SATURDAY.
9-10	Lecture or Demonstration.			Lecture or Demonstration.	stration.			
10-12	Laboratory Experiments.	10-10.15		Writte	Written Test.		10-1	Laboratory Experiments.
12-1	Written Test.	10.15-1		Laboratory	Laboratory Experiments.			
				March, April, May.	ay.			
9-10	Lecture or Demonstration.			Lecture or Demonstration.	monstration.			
10-10.15	Laboratory Experiments.			Written Test.	st.		10-12.15	Laboratory Experiments.
10.15-12	Laboratory Experiments.	10.15-		Laboratory Experiments.	xperiments.		-	
12-1	Written Test.	12.15-1		Thesis or Demonstration.	nonstration.			
				BIOLOGICAL CHEMISTRY.	STRY.			
2-3			Lecture. D	Lecture. Daily except Saturday.	у.			
3-6		Laboratory.		Laboratory and Conference.	Laboratory.	tory.		
	The state of the s	the same of the sa					_	

SECOND YEAR. - First Half-Year.

JANUARY.	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.	Tuesday, Thursday, and Saturday.	10.30-12 Monday, Wednesday, and Friday. Puthology. Laboratory.	Pathology. Lectures. Daily.	Daily except Saturday.	Surgical Pathology. Nichols.
	9-10	9-12	10.30-12	12-1		Surg
DECEMBER.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory.	T. Smith. Daily.			Pathology of the Nervous	System. Laboratory. Southard.
DECE	1 week. Pathology. Laboratory. Daily.			y.	Pathology o	Sys
November.	Pathology. Laboratory.			Pathology. Lectures. Daily.	Bacteriology. Lectures. Daily except Saturdays.	Bacteriology. Laboratory. Daily except Saturdays.
OCTOBER.	Pathology.			Patho	Bacteriology Daily excep	Bacteriology. Daily excep
	9-12			12-1	2-3	3-5.30

SECOND YEAR. - Second Half-Year.

		-				
	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
	М. G. II.	М. G. H.	В. С. Н.	M. G. II.	М. G. П.	В. С. П.
9-10	Clinical Medicine Clinic Shattuck	Surgery Chinic M. H. Richardson	Surgery Clinic Lothrop	Theory & Practice Clinic Fitz	Surgery Clinic M. H. Richardson	Clinical Medicine Clinic Jackson
10-12	32	Section Work				Surgery Clinic J. B. Blake
1-3		Clinical Pathology				
3-4	Surgical Technique 6 lectures Lothrop Room 201	Theory&Practice. L. Fitz Room 201			Theory&Practice. L. Fitz Room 201	
4-5	Surgery. L. Room 201	Pharmacology. L.	Pharmacology. L.	Surgery. L. Room 201	Pharmacology. L.	
5-6	Ilygiene. L. Harrington	Surgery. L. Room 201	Hygiene, I., Harrington	Hygiene. L. Harrington	Surgery. R. Burrell Room 201	

THIRD YEAR. - First Half-Year.

TUESDAY. WEDNESDAY. Clinical Medicine Clinic Clinic	Clinical Surgery Clinical L. H. Bowen, M. G. H. Futzuam, M. G. H. Burrell, B. C. H. Bowen, M. G. H. Fitz, M. G. H.	Section Work.	Theory and Practice Obstetries Obstetries. L. Fitz. Swain Room 201 Room 205	Dermatology. L. Bowen 201 Room 201 Rotch Syphilis. L. Room 205	GU. Surgery. L. Obet, Nov. Stargery. R. Standish Burrell Burrell Brewledge Bradford Bradfor
4)	Surgery Clinic M. H. Richardson M. G. H.		Obstetrics. L. The Green Room 205	Surgery. L. Room 201	Oct., Nov. Ophthalmology Standish Dec., dom. Orthopedics Bradford

THIRD YEAR. - Second Half-Year.

	Monday.	TUESDAY.	Wednesday.	THURSDAY.	FRIDAY.	SATURDAY.
Class Exercises 9-10	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic Bartol B. C. H	Neurology Clinic Putnam, M. G. H.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Medicine Clinic Bartol, B. C. H.	Clinical Medicine Clinic Shattuck, M. G. II.
10-11	Surgery. Clinic M. H. Richardson M. G. H.	Clinical Surgery Clinical L. Burrell, B. C. H.	Dermatology Clinic Bowen, M. G. II.	Clinical Surgery Clinical L. Burrell, Gay, or Monks, B. C. H.	Feb., Mar. Pediatries Clinical L. Rotch, C. H. Morse, No Grave St. Apr., May Sppulis Clinical L. Post, B. D.	Theory and Practice Clinic Fitz, M. G. H.
Sections 11-1			Section	Section Work.		
2-3	Municip. Sanita. Durgin Room 207		Psychiatry Cowles Room 201	Municip. Sanita. Durgin Room 207		
3-4	Obstetrics. L. Green Room 205		Obstetrics Conference Swain, Room 205	Obstetrics. L. Green Room 205	Obstetrics. R. Newell Room 205	Psychiatry Clinic Cowles, B.I.II.
4-5	Pediatrics. L. & R. Rotch, Morse Room 205	Pediatrics. L.&R. Rotch, Morse Room 205	Gynaecology L. or R. Green, Room 205	Laryngology Lecture Coolidge, Room 205	Gynaecology. L. Green Room 205	
5-6	Otology Lecture Blake, Room 205	Clinical Medicine Case Teaching R. C. Cabot Room 205	Clinical Medicine Case Teaching R. C. Cabot Room 205	Otology Lecture Blake, Room 205	Surgery Case Teaching J. B. Blake	

DEGREES

On February 27, 1907, degrees were conferred as follows:-

M.D.

James Joseph Cassidy.

Arthur Nelson Collins, A.B. (Univ. of Minn.) 1902.

John Edward Connelly.

John Andrew Freese, A.B. (Univ. of Illinois) 1902.

Thomas Joseph Maguire.

Dennis Cornelius O'Leary, A.B. (Holy Cross Coll.) 1896.

Walter Babcock Swift, A.B. 1901, S.B. 1903.

On Commencement Day, June 26, 1907, degrees were conferred as follows: —

M.D.

Robert Warren Ashley, A.B. (Univ. of Colorado) 1904.

James Bourne Ayer, Jr., A.B. 1903.

Francis Goodell Barnum, A.B. (Amherst Coll.) 1901.

William Janowsky Bernis, Ph.B. (Univ. of Rochester) 1905.

Alfred Varney Blackstone, PH.B. (Brown Univ.) 1903.

Howard Parker Blanchard, A.B. (Brown Univ.) 1901.

Austin Trafton Brant, A.B. (Boston Univ.) 1904.

William Joseph Brickley.

Lloyd Thornton Brown, A.B. 1903.

John Bryant, Jr., A.B. 1903.

Frederic Benjamin Mooers Cady, A.B. 1903.

John William Cahill, A.B. (Holy Cross Coll.) 1903.

Arthur Wyman Carr, A.B. (Williams Coll.) 1902, A.M. (ibid.) 1903.

Charles Otis Chase, A.B. (Brown Univ.) 1903.

Oscar Slade Creeley, s.B. (Tufts Coll.) 1903.

Irving Taylor Cutter, A.B. 1903.

Michael Andrew Dailey, A.B. (Dartmouth Coll.) 1904.

Patrick Aloysius Devaney, A.B. (Boston Coll.) 1903.

Edwin Lyon Draper, A.B. (Univ. of Illinois) 1902.

Martin Joseph English, A.B. (Holy Cross Coll.) 1903.

Archibald McKay Fraser, A.B. (St. Francis Xavier's Coll.) 1903.

Cornelius Edward Geary, A.B. (Holy Cross Coll.) 1903.

Harold Girard Giddings, A.B. 1901.

Fred Augustus Higginbotham, s.B. (Trinity Coll.) 1902.

Lawrence Richardson Hill, B.L. (Dartmouth Coll.) 1902.

Arthur Brewster Holmes, A.B. 1896.

Albert Foster Hunt, Ph.B. (Brown Univ.) 1899.

Alfred Dow Long.

Charles Anthony McDonald, PH.B. (Brown Univ.) 1903.

Walter Ralph Mansfield.

Earl Jerome Mathewson, A.B. (Brown Univ.) 1903.

Otis Pope Mudge, A.B. (Dartmouth Coll.) 1903.

Joseph William O'Connor, A.B. (Holy Cross Coll.) 1903.

Sherman Perry, A.B. (Colby Coll.) 1901.

Cadis Phipps, A.B. 1903.

Mason Ross Pratt, A.B. 1904.

John Evarts Rice, A.B. (Boston Univ.) 1903.

Augustus Riley, A.B. (Oberlin Coll.) 1903.

George Maurice Sheahan, A.B. 1902.

Irving Sobotky, s.B. (Amherst Coll.) 1903.

John Joseph Stack, A.B. (Holy Cross Coll.) 1902.

Frederic Arthur Stanwood, A.B. (Bowdoin Coll.) 1902.

Roy Eliot Sturtevant, A.B. 1901, S.B. 1902.

Edward Augustine Supple, A.B. (Boston Coll.) 1903.

Lawrence Clarke Swan, A.B. (Dartmouth Coll.) 1903.

Charles Renough Vinal.

Irving James Walker, A.B. 1903.

M.D. cum laude

Fred Harold Allen, A.B. (Amherst Coll.) 1902.

Russell Thompson Congdon, A.B. (Ripon Coll.) 1903.

Charles Orrin Day, Jr., A.B. (Yale Univ.) 1903.

George Bourne Farnsworth, A.B. (Bowdoin Coll.) 1903.

Donald Gregg, A.B. 1902.

Torr Wagner Harmer, A.B. 1903.

James Lincoln Huntington, A.B. (Dartmouth Coll.) 1902.

James Payton Leake, A.B. 1903.

Benjamin Foreman May, A.B. 1903.

Francis Weld Peabody, A.B. 1903.

Charles Maynard Richards, A.B. (Leland Stanford Jr. Univ.) 1903.

Roy Angelo Sadler, A.B. 1904.

Michael James Shaughnessy, A.B. (Bowdoin Coll.) 1903.

Richard Mason Smith, A.B. (Williams Coll.) 1903.

Lesley Hinckley Spooner, A.B. 1903.

Charles Walter Waddell, A.B. (West Virginia Univ.) 1900.

ADMISSION EXAMINATION.

June, 1907.

CHEMISTRY.

T

- 1. What are the properties of ammonium chloride, calcium chloride, silver chloride, mercuric chloride, cupric chloride?
 - 2. Write the reactions: -

Sodium bi-carbonate + sulphuric acid (excess). Sodium + hydrochloric acid. Barium chloride + di-sodium phosphate.

- 3. What volume of sulphur dioxide can be obtained from one gram of sulphur? One liter of hydrogen weighs 0.09 gram. S = 32; 0 = 16.
 - 4. Describe a commercial process for the manufacture of sulphuric acid.
 - 5. What changes occur when metallic sodium is exposed to the air?

II

- 6. Give a list of useful flame tests.
- 7. How can the presence of sulphuric acid and phosphoric acid be proved in a solution containing sodium sulphate and di-sodium phosphate?
- 8. Describe the procedure by which the presence of copper is proved in routine qualitative analysis.

III

- 9. Write the constitutional formulas of methyl alcohol, ethylene, phenol (carbolic acid), ethyl chloride, propane, hexane, aniline, glycerine.
- 10. What reaction is involved in the production of vinegar from wine or cider?
 - 11. What are aldehydes, carbohydrates, ethers?
 - 12. Explain the process of soap making.
 - 13. Why is carbon believed to be quadrivalent?

EXAMINATION PAPERS.

(Annual Examinations, 1907.)

First Year Studies.

ANATOMY. - Professor Dwight.

- 1. Describe the orbit as it is in the skull.
- 2. Give the arrangement of the bones of the carpus and metacarpus.
- 3. Describe the diaphragm.
- 4. Describe the azygos system of veins.
- 5. Give the position and relations of the kidneys.
- 6. Describe the adenoid structures of the mouth and pharynx.
- 7. Give the course of a sensory impression, coming from the foot, from its entrance into the vertebral canal to the convolutions.
 - 8. Describe the convolutions of the frontal lobe of the brain.

HISTOLOGY AND EMBRYOLOGY. - Professor MINOT.

[Each student is given three sections to correspond with the first three questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

Questions 1, 2, 3, and 4 are for both Medical and Dental students.

- 1. Describe and draw the different kinds of epithelium in the organ.
- 2. What is the organ? What is the plane of section? Draw and describe the muscle fibres in longitudinal and cross section.
- 3. What is the organ? Trace the course of its secretion, drawing and describing each part of that course. Describe its bloody supply.
 - 4. What is lymphoid tissue? In what organs is it chiefly found?
- 5. (For Medical students only.) (a) A man of 28 years was seized with violent abdominal pain, and died in 56 hours. The autopsy revealed a blind pouch, four inches long, arising from the small intestine three feet above the valve of the colon (ileo-caecal valve). In this special case the blind end of the pouch had become adherent to the mesentery, forming a ring, in which a loop of intestine was caught; thus the lumen of the intestine had become obstructed. How do you account, embryologically, for the occurrence of such a blind pouch?

(b) A nodule, about one half an inch in diameter, was removed surgically from the back of the tongue. Sections of the nodule contained many round follicles lined by simple cuboidal epithelium and containing colloid material staining intensely with eosine. What organ do these follicles suggest? How do you account, embryologically, for their occur-

rence in the tongue?

- 6. (For Medical students only.) What is neuroglia? Describe briefly its development and structure.
- 7. (For Dental students only.) By a series of drawings show the process of development of the enamel and dentine.
 - 8. (For Dental students only.) From what germ layer come
 - (a) adamantoblasts;
 - (b) odontoblasts;(c) stellate reticulum.

What is the relation between the odontoblasts and the dentine?

- (1) during the development of the dentine;
- (2) in the adult tooth.

PHYSIOLOGY. - Professor W. B. CANNON.

[Answer any five questions. Mention, where possible, experimental evidence in support of your statements.]

- 1. Discuss the factors concerned in neuro-muscular fatigue.
- 2. Discuss the senses of taste and smell and their relations to each other.
- 3. Give in detail the events of a cardiac cycle.
- 4. Describe briefly the structure and function of the vasomotor system, giving experimental evidence.
- 5. Discuss the effects of the digestive secretions on one another.
- 6. Discuss the internal secretion of the supra-renal glands.

BIOLOGICAL CHEMISTRY. - Drs. Alsberg and Henderson.

- 1. Give the constitutional formulas of formic acid, lactic acid, leucin, a pentose.
- 2. What are the differences, chemical and physical, between tri-olein and tri-stearin?
- 3. What are the differences, chemical and physical, between glucose and levulose?
- 4. What are the differences, chemical and physical, between egg albumin and gelatine?
 - 5. Briefly discuss the chemical nature of haemoglobin.
 - 6. Briefly discuss the transport of oxygen.
 - 7. What is zymase? What was the significance of its discovery?
 - 8. What are the lecethins?
 - 9. What are the sources of energy in the course of starvation?
 - 10. What is autolysis? Discuss its significance.
- 11. What are the most important forms of urinary nitrogen? What influences produce variations in their relative amounts?
- 12. What can you say about the fate of the aromatic complex of the proteid molecule in the body?
 - 13. Discuss the elimination of sodium chloride by the kidney.
 - 14. What food stuffs augment the excretion of uric acid?

Second Year Studies.

BACTERIOLOGY. - Professor Ernst.

- 1. What is the difference between the higher and the lower bacteria?
- 2. Contrast Infection and Intoxication.

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- 3. What is meant by "races" of bacteria? Use the tubercle bacillus as an illustration.
- 4. Give the methods for diagnosing the tetanus bacillus.

PATHOLOGY. - Professor Councilman.

- 1. (a) Discuss necrosis stating causes and changes which are produced in cells. (b) Character of fat necrosis. (c) With what pathological condition is fat necrosis associated?
- 2. (a) What do you mean by granulation tissue? (b) What cells are found in it? (c) Under what circumstances is it found?
- 3. Describe the conditions in the areas affected in hemorrhagic infarction of the kidney. Under what conditions of the circulation is hemorrhagic infarction of the lung found.
- 4. Discuss acute endocarditis. (a) What organisms most frequently cause it? (b) What valves are most frequently affected? (c) What conditions in the heart may follow recovery?
- 5. (a) What tumors may be found in the uterus? (b) Which of these give rise to metastases and in which lymph nodes are metastases most likely to be found?
- 6. Name structural and functional disorders ensuing upon "recovery" in cases of acute (e. g. meningococcal) meningitis.
- 7. (a) Sketch areas of degeneration in the cervical and in the lumbar spinal cord following a destructive lesion of one internal capsule. (b) What focus is earliest involved in a case of syringo myelia (sketch) and what is the function of the elements in this focus?
- 8. Tuberculosis of joints. Give cause, predisposing cause, usual site of original lesion, and method of extension.
- 9. Discuss the geographical distribution of animal parasites, and those conditions climatic and sociological which favor their dissemination.
 - 10. Give the biology and pathological action of Uncinaria and Trichinella.

 (Write 9 and 10 on separate papers.)

HYGIENE. - Professor Harrington.

- 1. Discuss fully the wide seasonal fluctuations in infantile mortality and suggest methods of combatting their principal cause.
- 2. Mention the various ways in which diphtheria, typhoid fever, and scarlet fever are spread. What preventive measures should be taken when these diseases are tending to become epidemic?

3. What importance, if any, have temperature and humidity in disinfection by formaldehyde gas? Compare the germicidal efficiency of:—

Creolin, 1 to 20. Carbolic acid, 1 to 40, Tricresol, 1 to 40, Absolute alcohol. Corrosive sublimate, 1 to 1000, Zinc chloride, 1 to 10.

4. Describe two methods of purifying water on a large scale, and two ways other than direct discharge into the ocean, lakes or rivers, of sewage disposal.

Third Year Studies.

MATERIA MEDICA AND THERAPEUTICS. - Professor Praff.

- 1. Action of pilocarpine, its uses and dangers.
- 2. Action of veratrine.
- 3. Action of arsenic and antimony.
- 4. Write prescriptions for the following, avoiding abbreviations, and give directions in full to the patient: -
 - (a) Amylnitrite;

 - (b) Homatropine;(c) Carbolic acid;
 - (d) Squill;
 - (e) Acetanilide;
 - (f) Salicylic acid.
 - 5. Indication of treatment in acute dilatation of the heart.
- 6. Give in detail the principles of the dietetic treatment of chronic Bright's disease.
- 7. Give the principles of treatment of a case of dilatation of the stomach due to benign obstruction of the pylorus.
 - 8. Action of ergot, its uses and dangers.

THEORY AND PRACTICE. - Professor Fitz.

- 1. The prognosis and treatment of influenza.
- 2. Discriminate between simple and malignant endocarditis.
- 3. The clinical significance of arteriosclerosis.
- 4. The symptoms and signs of an intra-thoracic tumor.
- 5. Indications for the appropriate treatment of functional disorders of the stomach.
 - 6. The method of origin of an umbilical, fecal fistula.
 - 7. The diagnosis and significance of mucous colitis.
- 8. The limitations to the medical treatment of diseases of the biliary tract.
 - 9. The treatment of enlargement of the kidney.
 - 10. The diagnostic significance of haematuria.

CLINICAL MEDICINE. - Professor SHATTUCK.

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The Intelligent discussion of the case will have more weight than a hasty and inconclusive, though correct, diagnosis. Write out all prescriptions in full.]

Case 1.—A widow of 54, mother of four children, is seen March 9th about 8 p.m. Her previous health has been good except that once in 1901 and again once in 1903 in Europe, she had severe, sudden, apparently causeless, pain at the pit of the stomach, lasting only an hour or two, without vomiting or sequelae of any kind. No physician was summoned.

For some months past she has suffered more or less from dyspepsia, but has been very active and has not sought advice. Yesterday evening, while at the theatre, she was seized with sudden, intense pain at the epigastrium with a feeling of distention. She went to the toilet room, slacked her clothes without relief, and returned home, sending for the doctor about midnight. He found her in intense pain with tenderness between the ensiform and navel, vomiting food eaten at dinner. Pulse and temperature, normal. One-fourth grain morphia hypodermic was given immediately, followed in an hour by 1, and then another. The doctor stayed until four, and then left, having secured a nurse. The pain was merely dulled. At 5, one more \(\frac{1}{8} \) of morphia was given but none since. The urine passed at midday had a gravity of 1031, with marked copper reduction in Fehling's solution. She states that she had had no polyuria or increased thirst; but that last summer for a time there was considerable irritation of the skin between the upper thighs. She has dozed through the day, but had little connected sleep. Pulse, 108; temperature 98.6. She is lying on the left side, and in order to turn sits up first, finding that in this way sne can move with less pain. When lying on the back, she extends the legs. No jaundice. A fat abdomen, not distended, with more or less general tenderness, most marked above the navel on both sides. No tenderness in flanks. Chest negative. Vomiting has ceased.

Diagnosis? Prognosis? Treatment?

Case 2.— Mr. C., a banker of 48, one of whose brothers died at 49 of apoplexy and two of Bright's disease, was treated 7 years ago for a supposedly chronic nephritis. Under the strain and worry of frequent urinary examinations and strictly limited diet he grew very morbid and gloomy. After a change of physicians, a cessation of the urinary examinations and a return to normal diet, the urine (previously albuminous) became normal and he went about his business as usual.

Six months ago, while travelling in Europe, he had to undertake the whole care of a friend very ill with cardiac disease, of which he subsequently died. Soon after his friend's death, Mr. C. began to think that he too had heart disease and consulted his physician (for the first time in 7 years) complaining chiefly of palpitation and dyspnoea on exertion. These symptoms were soon relieved by reassurance and 5-drop doses of the tincture of nux vomica, but he found himself utterly floored by slight worries or mistakes in business and soon gave up work and kept his room, sitting for hours moodily silent and apparently oblivious of his surroundings. His memory is rapidly failing. He feels the cold very much. No gastric symptoms, no dyspnoea. Sleeps well.

Examination (March 21st, 1907): -

The patient was very dull and stupid when seen and often failed to answer questions. The cardiac apex was in the 6th interspace, an inch outside the nipple, a strong, slow beat. The second sound at the apex was especially sharp. No murmurs. Lungs and abdomen normal. Slight oedema of the ankles. The urine is about 60 ounces in 24 hours and contains \(\frac{1}{2} \)% of albumen with hyaline, granular and fatty casts in moderate numbers. No sugar. The blood showed a well-marked leucocytosis. No Temperature normal. Skin moist.

Diagnosis? Prognosis? Treatment?

Case 3. - A neurotic lady, 55 years old, unmarried, is seen February 21st. Father died of tuberculosis forty-five years ago, mother of pernicious anaemia. Menopause ten years ago. Had rheumatic fever nine years ago. General health has always been good. A year ago had a severe attack of dizziness for which no cause could be found. This passed off after a day or two but since then she has complained of occasional feelings of dizziness, and has had some cardiac palpitation and a little shortness of breath on exertion. Nevertheless she has been unusually active during the last four or five months, but has felt very tired toward For the last three months she has had a short hacking cough, at times somewhat paroxysmal in character. Has raised a little glairy mucus. On January 26th, she awoke feeling tired and used up. After preparing her bath, she felt so weak and dizzy that she attempted to return to bed but fell "unconscious" just as she reached it. When found by a friend immediately after, she was found in a sitting posture supported by the bed; face markedly flushed, and her head bent sharply forward. Both arms were held extended with the fingers half flexed and rigid. No convulsive movements. She was apparently unconscious but rapidly revived and helped herself into bed. Since then she has had a poor appetite, occasional nausea and rare vomiting and felt very miserable, but kept about the house until ordered to bed by her family physician who first saw her a week later. The bowels have required laxatives. The cough has decidedly improved during the last few days. Since February 2d, when it was first taken, the temperature has run a regular course, varying between normal in the morning and 1012 to 102 degrees in the afternoon. Pulse has varied between 90 and 100°.

The patient is a slightly anaemic looking woman, somewhat emotional, in good flesh, who is greatly exercised lest she may be a nuisance, owing to her illness, to the friends whom she is visiting. Tongue covered with a thick white coat. Breath somewhat offensive. Pharynx slightly reddened. The apex of the right lung is slightly dull on percussion with somewhat harsh respiration, but the normal limits are probably not exceeded. No râles. Heart normal. Examination of abdomen difficult owing to its thick walls, but the left side below the ribs appears a little fuller than the right, and there is an indistinct feeling of a doughy mass in the left hypochondrium. Knee jerks active. Physical examination otherwise negative. Urine: Sp. gr. 1026, high color, loaded with urates. No albumen, no sugar. Sputum negative. Blood: Hg. 70%. Leucocytes 5200. Red cells normal. No parasites. Widal test negative.

Diagnosis? Prognosis? Treatment?

PEDIATRICS. - Professor ROTCH.

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case and give the differential diagnosis, and the treatment:—

A girl 5½ months old had always been a perfectly well, breast-fed baby. About 5.45 A.M., September 6th, she suddenly began to cry and to put her hands on her abdomen. The crying continued for one-half hour or more. At about this time she had three movements consisting almost entirely of bright blood. After this she vomited two or three times. The character of the vomitus was not noted. From the history she evidently was somewhat collapsed for a short time after the onset of the pain. She was seen about 7.30 A.M. by a physician who examined the abdomen, but found nothing abnormal. He did not consider the condition an important one, although he watched the case very carefully afterward. She continued to have 7 or 8 small movements daily which consisted entirely of mucus and The amount of blood, however, had steadily diminished. The movements contained no fecal matter. A bismuth mixture, which was ordered at the first visit, was vomited. There was no more vomiting until noon of September 8th, since then she had vomited almost constantly. She continued to take the breast well. She had had no more sharp attacks of pain, but had slept very little, moaning most of the time. She did not seem very sick until the 8th, and had noticed things and played a little that afternoon. The rectal temperature had been taken morning and evening and had never been over 100° F. The mother thought that she felt a bunch in the abdomen on the evening of the 7th, but both the mother and the doctor failed to find it the next morning. She was given two teaspoonfuls of castor oil the morning of the 8th and also several large injections of salt and water. She was seen at 9 P.M. September 8th.

Physical Examination. — She was well developed and nourished. There was slight pallor. The face was drawn and anxious. She noticed a little. The fontanelle was nearly level. The tongue was slightly dry. The heart and lungs showed nothing abnormal. The liver was palpable 3 cm. below the costal border. The spleen was not palpable. The level of the abdomen was somewhat below that of the thorax. An indefinite resistance was felt in the left lower quadrant. There was no muscular spasm, but a little tenderness in this region. The rest of the abdomen was negative. Rectal examination showed more resistance in the left half of the abdomen than in the right, but nothing at all definite. The extremities showed nothing abnormal. There was no enlargement of the peripheral lymph nodes.

The temperature was 100.4° F., the pulse 180.

2. Compare the composition of human milk with that of cows' milk in reference to the percentage of fats, milk sugar, whey proteids, caseinogen and mineral matter.

- 3. Give the symptoms and diagnosis of pyloric stenosis.
- 4. Give the differential diagnosis between scarlet fever and measles, and state what complications and sequelae are characteristic in each disease.
 - 5. State the different causes of infantile convulsions.
- 6. Give the symptoms and differential diagnosis of epidemic cerebrospinal meningitis.

SURGERY .- Professor WARREN.

- 1. What is the gross pathological change in the deformity of knock-knee?
 - 2. What symptoms serve to distinguish hemorrhage from shock?
 - 3. Describe artificial respiration.
- 4. Describe the reduction of a dislocation of the hip on the dorsum of the ilium.
 - 5. Prognosis of a fracture of the surgical neck of the humerus.
 - 6. Effects on the human body of a .30 jacketed projectile at 200 yards.
 - 7. Contraindications to a gastro-enterostomy.
 - 8. Causes of acute pancreatitis.
 - 9. Treatment of fracture-dislocation of the cervical spine.
 - 10. Symptoms of internal hemorrhoids.

CLINICAL SURGERY. - Professor M. H. RICHARDSON.

The first case is for diagnosis, prognosis, and treatment. As thorough discussion may be given as time permits.

In the other cases the questions may be answered in a word, without discussion and without reasons.

1. A married woman of 52, after fifteen years of profuse flowing at the menstrual periods (for which curettage two years before had been of some benefit), began, six months ago, to feel abdominal discomfort. Three months ago her corsets were noticeably too tight. Two weeks ago the attending physician found the abdomen much enlarged. There was fluctuation, and, on percussion, a wave of transmission from side to side. There has been, from time to time, pain in the region of the gallbladder, without jaundice. The weight has been decreasing for some time, and there has been some oedema of the feet. The abdomen is symmetrically and enormously enlarged. There is dulness everywhere. Gentle percussion sends a wave from side to side. The urine is normal. Vaginal examination is negative. The general condition is fairly good—good enough to justify a laparotomy. The heart examination justifies the use of ether. In examining the heart the surgeon notices a small depression below the left nipple — a dimple caused by the drawing in of skin which is adherent to underlying tissues. The skin about the depression is thickened and infiltrated, with here and there small red nodules. At the bottom of the dimple there is a small ulcer, covered by a crust. The left axilla contains a few enlarged glands. The condition of the breast has existed, it is said, more than seven years.

Discuss the diagnosis, the prognosis, and the treatment.

2. A gentleman, 41 years of age, of good health, was thrown from his carriage, striking on his left shoulder. He was able to pick himself up and to make his way home, though the shoulder was useless and painful. There was much swelling and extensive ecchymosis. Without ether, manipulations of the shoulder were excessively painful. It was thought that crepitus could be felt. Under ether a bony mass could be felt under the coracoid process. Rotation of the humerus caused crepitus. The mass under the coracoid was unaffected by the rotation.

What is the diagnosis?

3. A married woman of 48, whose last child is five months old, has had for five years "digestive disturbances," with marked constipation. She was in good general health up to two months ago. She was able to do her own work. In September, 1906, she had an attack of severe pain (colic) in the left upper quadrant of the abdomen. The pain required for its control \(\frac{1}{4}\) to \(\frac{1}{2}\) grain of morphia. This attack lasted a few hours, and then, under morphia, subsided. In two weeks she had a similar attack; and from that time on the attacks became more frequent. In two, the temperature rose to 101°. There was tenderness in the right hypochondrium, but the pain was in the left. The patient has lost twenty pounds in weight. The urine is normal. With the pain there is always vomiting of ingested food, but with the vomiting there is no relief. There has been no jaundice. No tuberculosis or cancer in the family. The patient has had no serious illnesses. Heart and lungs are normal. The edge of the liver is perceptible and a tender tumor can be felt in close connection with it. The temperature is normal; pulse 80. There has been no attack for two weeks.

Would you operate or not?

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What would you expect to find if you should operate?

OBSTETRICS. - Professor W. L. RICHARDSON.

- 1. On what signs and symptoms would you make a diagnosis of foetal death after the seventh month of pregnancy?
- 2. What are the dangers of a retro-displacement of the uterus as a complication of pregnancy? Describe treatment.
- 3. Describe briefly the mechanism of labor in a case of breech presentation; position S. L. A.
- 4. In the case of a multipara, who has delivered herself unattended after a labor of twelve hours, the baby is found to have a caput succedaneum over the anterior, superior angle of the right parietal bone. In what position was the baby's head arrested when the caput was formed?
- 5. The significance of the maternal and foetal pulse rate in the conduct of a labor case.
- 6. Early in the second stage of a secundipara the funis is found prolapsed; the head, presenting O. D. P., is lightly engaged and somewhat extended; the mother shows no signs of fatigue, and the funis is pulsating normally. Treatment?
- 7. A multipara, seen after two hours of active second-stage labor, is found to present the face, M.D.P. There has been no progress for an hour, and the condition of the mother indicates that labor ought to be terminated, although the foetal heart is still unaffected. Discuss your treatment.
- 8. What are the two chief types of pelvic contraction? In the minor cases of these contractions, not requiring delivery by Caesarean section, what are the operative measures of election in the two types respectively? Is the choice of operation affected by the primiparity or multiparity of the patient? If so, for what reason?
- 9. How would you treat the convalescence of puerperal eclampsia, and what would be your advice as to future pregnancy?
- 10. What are the symptoms of puerperal infection and how soon after delivery can they usually be detected? Treatment?

GYNAECOLOGY. - Professor Green

- 1. Urethritis in women: aetiology and treatment?
- 2. Complete procidentia uteri in aged women: what non-operative treatment may relieve symptoms and promote comparative comfort?
- 3. Salpingitis: exciting causes and symptomatology? Outline the non-surgical treatment.
- 4. In parametric infections by lymphatic or vascular route, how may the process terminate? What in general should be the treatment according to the stage of inflammation?
- 5. Carcinoma of the cervix uteri: varieties, symptoms, course, diagnosis? How would you decide in a given case whether or not to advise radical surgical treatment? In inoperable cases what palliative treatment is advisable?

DERMATOLOGY .- Asst. Professor Bowen.

- 1. What are the important points of differential diagnosis between erysipelas and an acute dermatitis?
- 2. The treatment of psoriasis.
- 3. What are the characteristics and the course of cutaneous tuber-culosis?
- 4. Describe a typical case of impetigo contagiosa, and give the outlines of its treatment.
- 5. Alopecia areata.

SYPHILIS. - Asst. Professor Post.

- 1. In the diagnosis of primary syphilis what is the value of multiple sores?
 - 2. What is the character and diagnostic value of the satellite bubo?
 - 3. What are the general characteristics of the syphilides?
 - 4. Describe syphilitic alopecia.
- 5. A man has had syphilis for a year or a little longer. His wife has given birth to a baby now three days old. Neither wife nor baby have any signs of syphilis. Doubts have been expressed as to the propriety of allowing the mother to nurse the child. What is your advice?

NEUROLOGY. - Professor PUTNAM.

- 1. What is the character of the reflexes, motor paralyses, and sensory disturbance of the arms and legs, in a transverse lesion of the spinal cord, (1) at the level of the cervical enlargement; (2) at the level of the umbar enlargement?
- 2. A robust, healthy-looking Italian woman had suffered from severe frontal headaches for two weeks. These she could stand during the day, but at night the pain was more intense and kept her from sleep. Accompanying this symptom was nausea, sometimes causing vomiting, and an unsteadiness in gait, the patient saying that she could walk fairly well in

a broad street, but on a narrow walk she staggered from side to side and on several occasions had fallen. After the headaches had persisted for two weeks she noticed that her left eye-lid drooped and her face had a queer expression, but this she said she would not mind if only she could

be rid of her pain, which medicine did not relieve for long.

While talking the patient sits pressing her hand to her forehead for relief. The face has a grotesque look which is largely due to the fact that she can not open the left eye nor close the right eye. The right half of the forehead can not be wrinkled and the right side of the mouth can be moved but little. Although there is ptosis of the left eye and the pupil is considerably dilated, the movements of the eye seem to be normal in all directions. Both pupils are regular in outline and react to light normally, and the fundus of both eyes is normal. The sensibility of the face and the strength of the masseter muscles seem normal. The hearing of the right ear is good, but on the left side is diminished, both to bone and air The movements of the tongue are normal and the heart conduction. sounds are regular and of good quality, the pulse rate being 84. The wrist-jerks are not exaggerated and the grasp is strong. The right kneejerk is livelier than the left. The gait is unsteady in walking.

Two weeks later the patient complained of a sense of constriction about the waist and of weakness of the legs. She was also very hoarse. The changes which had taken place since the previous examination were the appearance of a band of anaesthesia around the right half of the abdomen. There was exaggeration of the knee-jerks of both sides, but especially the right, and ankle-clonus was present on the right side. There was also

paralysis of the right vocal cord.

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Diagnosis. Prognosis. Treatment.

PSYCHIATRY. - Dr. Cowles.

- 1. What is the "emotional tone," or "feeling tone," and its relation to organic conditions?
- 2. What is the significance of the terms "psychasthenia" and "neurasthenia" in their relations to each other and to the melancholia-mania group of psychoses?
 - 3. Describe, briefly, "dementia praecox" in its principal forms.
- 4. Case. A woman; married; age 44 years when admitted to hospital in 1898 as a voluntary patient; mother was in a hospital for the insane late in life, otherwise no heredity; general health good. At age of 38, after death of her mother, mentally depressed for two weeks, saying nobody cared for her, —at times depressed afterwards, but not without cause. In May, 1896, husband committed suicide; six weeks later she gave birth to a child and became depressed, and on its death, in January, 1897, was worse. Improved in the following spring and appeared normal in the summer. In August, again began to worry about what would become of her children, feared she was coming to want; —was often quite agitated, repeating frequently, "Oh, what will become of me, what shall I do?" She spoke of suicide, and two weeks before admission to hospital grew worse, slept badly, ate little, was unwilling to go out of doors, made two attempts at suicide. Menstruation normal.

In Hospital. — Admitted in March, 1898; her condition, though varying in intensity, continued the same in its essential features till near the end

of seven months' stay there. She was depressed throughout, worrying about the future of herself and children; later feared that proper care was not taken of her money,—that she would have to die in an insane asylum. These ideas were usually expressed with much agitation and repetition; at the same time she would walk back and forth, sometimes exhausted and sitting on the floor, or noisy in her lamentations with extravagant statements of her apprehensions and genuine worry and despondency. She had improved physically after six months, and it seemed possible that her thoughts and actions were controlled by habit to a great extent. Upon being severely rebuked for her unreasonable behavior and told that, if she wanted to go home, she needed only to conduct herself properly, the change was remarkable; she grew quieter and a week later, being composed and natural in manner and appearing entirely rational, she was allowed to go home. Menstruation normal while in hospital.

Give diagnosis, stating characteristic symptoms, with your opinion as to whether or not the result was to be regarded as a recovery, and the reasons

for that conclusion.

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. Gonorrheal ophthalmia.
- 2. Phlyctenular conjunctivitis, description, clinical history, and treatment.
 - 3. Describe the two principal operations for the extraction of cataract.
 - 4. For what purposes are lenses prescribed for young children?
- 5. What ocular lesions may produce a central scotoma in the field of vision?

OTOLOGY. - Professor BLAKE.

- 1. Describe the mastoid process of the temporal bone.
- 2. Give the locations and attachments of the tensor tympani and stapedius muscles.
- What are the effects produced by protracted closure of the tympanopharyngeal tube.
- 4. Give the symptoms, objective and subjective, of an acute inflammation of the middle ear, in a child.
- 5. Give the symptoms of acute mastoiditis in an adult.
- 6. Describe the abortive treatment of an acute mastoiditis.

LARYNGOLOGY. - Asst. Professor Coolidge.

- 1. The treatment of fracture of the nasal bones.
- 2. The source and composition of the nasal fluid.
- 3. What are the two varieties of frontal sinus? Where can the frontal sinus always be found? From what does the frontal sinus develop?
 - 4. Describe secondary syphilis of the fauces. Treatment.
 - 5. The relationships and methods of removal of the faucial tonsils.
- 6. Draw and describe a larynx, as seen in the laryngoscopic mirror, in a case of incipient laryngeal tuberculosis.

THE MEDICAL SCHOOL.

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Courses for Graduates.

1906-07.*

Amadon, Alfred Mason, A.M. (Williams Coll.) 1896, M.D. (Dartmouth Coll.) 1897, Boston. Alderson, Harry Everett, M.D. (Univ. of California) 1900, San Francisco, Cal. Natick. Bancroft, George Andrew, M.D. 1890, Barstow, Henry Taylor, A.B. 1880, M.D. 1884, Boston. Beekel, Frederick, A.B. (Univ. of Michigan) Cleveland, O. 1904, M.D. (ibid.) 1906, Borden, Charles Richardson Cobb, M.D. (Med. Sch. of Maine) 1896, Boston. Bailey, George Poole, M.D. (Dartmouth Coll.) Natick. 1881, Bruce, Harold Milton, A.B. 1902, M.D. 1906, Brookline. Coan, Thomas Patrick, A.B. (Mt. St. Joseph's Coll.) 1903, Baltimore, Md. Cobb, Carolus Melville, M.D. (Univ. of Vermont) 1883, Lynn.Crane, Edward Harrison, M.D. (Univ. of Iowa) 1904. Odebolt, Ia. Fall River. Curry, Edmund Farnham, M.D. 1896, Davidson, Kallman Meyer, M.D. (Königsberg, Germany) 1887, Boston. DeLue, Frederick Spaulding, M.D. 1894, Needham. Emerson, Francis Patten, M.D. (Coll. of Phys. Roxbury. and Surg., New York) 1886, Fontaine, Bryce Worthington, M.D. (Univ. of Penn.) 1898, Mound, La. Gengenbach, Frank Paul, M.D. (Univ. of Penn.) Denver, Colo. Graham, William Tate, M.D. (Univ. of Virginia)

Max Meadows, Va.

^{*} Entering after the issue of the Catalogue of 1906-07.

Hale, Edith, A.B. (Radeliffe Coll.) 1901, M.D. (Johns Hopkins Med. Sch.) 1905,

Hall, Gardner Wells, A.B. (Harvard Univ.) 1898, M.D. (Johns Hopkins Med. Sch.) 1901,

Harkness, Robert Bruce, M.D. (Memphis Hosp. Med. Coll.) 1899,

Harriman, David Eugene, M.D. (Univ. of Vermont) 1898,

Haskell, Pliny Fisk, M.D. (Amer. Med. Missionary Coll.) 1902,

Hayward, Sumner, M.D. 1881,

Horgan, John Augustus, M.D. 1888,

Howes, Leroy Mason, M.D. (Med. Sch. of Maine) 1897,

Jordan, John Franklin, M.D. (Univ. of Michigan) 1900,

Kelleher, Patrick Francis, M.D. (Tufts Coll. Med. Sch.) 1896,

Knowles, Richard Keneborough Black, A.B. (Acadia Coll.) 1897, M.D. (Harvard Med. Sch.) 1902,

Madden, William Daniel, A.B. (Mt. St. Mary's

Coll.) 1891, M.D. (Harvard Med. Sch.) 1894, Mahoney, Francis Xavier, M.D. v. 1892, M.D. 1905,

Mandell, Augustus Hamlin, M.D. (Univ. of New York) 1897, M.D. (Cornell Univ.) 1899,

Merrill, William Jackson, A.B. (Bowdoin Coll.) 1898, M.D. (Univ. of Penn.) 1902,

Powers, Hale, s.b. (Wesleyan Univ.) 1900, m.d. (Miami Med. Coll., Cincinnati) 1904,

Ravdin, Marcus, M.D. (Memphis Hosp. Med. Coll.) 1900,

Raymond, Katharine Pratt, s.B. (Univ. of Cincinnati), M.D. (Univ. of Michigan),

Rogers, Daniel Eastman, M.D. 1901,

Shanahan, Timothy Joseph, A.B. (Dartmouth Coll.) 1901, M.D. (Harvard Med. Sch.) 1905,

Shurtz, Richard Elmer, M.D. (Rush Med. Coll.) 1897,

Sissa, Silvio,

Smith, Forster Hanson, M.D. 1902,

Stearns, Henry Cutler, M.D. (Dartmouth Med. Sch.) 1895,

Townsend, David, s.B. 1896, M.D. 1901,

Boston.

Boston.

Houghton, Mich.

So. Hadley Falls.

Keene, Texas. Rochester, N. Y. Roxbury.

Enfield, Me.

Peabody.

Cambridge.

Gloucester.

Boston.
Dorchester.

New Bedford.

Philadelphia, Pa.

Brookline.

Evansville, Ind.

Boston.

Portland, No. Dak.

Somerville.

Champaign, Ill. E. Boston. Lowell.

Haverhill, N. H. Brookline.

Walker, David Harold, M.D. 1898, Brookline. Weaver, Harry Vernon, M.D. (Boston Univ. Sch. of Med.) 1893, Springfield. Williams, David Lawrence, M.D. (Tufts Coll. Med. Sch.) 1906, Boston.

Young, James Herbert, s.B. 1903, M.D. 1906, Amesbury. 1907-08. Alley, Ernest Jason, M.D. (Univ. of Vermont) 1899, Concord Junction. Bell, Dudley Johnson, M.D. (Med. Sch. of Maine) Granville, Yukon Ter., Can. 1888, Bernard, Emory Darwin, M.D. (Saginaw Valley Med. Coll.) 1898, Port Arthur, Tex. Berry, William Christopher, M.D. (Tufts Med. Sch.) 1907, Charlestown. Blake, Allen Hanson, M.D. 1904, Cambridge. Blake, Gerald, A.B. 1901, M.D. 1905, Boston. Brickley, William Joseph, M.D. 1907, Charlestown. Burnham, Elmond Arthur, A.B. (Tufts Coll.) 1889, M.D. (Harvard Med. Sch.) 1894, Boston. Chase, Joseph, Jr., M.D. (Boston Univ. Sch. of Med.) 1878, E. Weymouth. Crossman, Edgar Orin, M.D. (Univ. of Vermont) 1887, Lisbon, N.H. Daly, Timothy Joseph, M.D. 1897, Lawrence. Farmer, Frank Emerson, M.D. (Med. Dept., Univ. of Vermont) 1899, St. Johnsbury, Vt. Freel, Ira Albert, M.D. (Univ. of Toronto) 1882, Stouffville, Ont., Can. Freeman, Charles Harlow, A.B. (Acadia Coll.) 1896, M.D.C.M. (McGill Univ.) 1900, Milton, N.S. French, Charles Ephraim, M.D. (Univ. of Maryland) 1893, Lowell. Geer, George Independence, Westbrook, Me. Goodall, Harry Winfred, A.B. (Dartmouth Coll.) 1898, M.D. (Harvard Univ.) 1902, Boston. Gregg, Donald, A.B. 1902, M.D. 1907, Colorado Springs, Colo. Halladjian, Isaiah Hagob, A.B. (Central Turkey Coll.) 1901, M.D. (Yale Med. Sch.) 1906, Aintab, Aleppo, Turkey. Hatch, Royal, A.B. (Dartmouth Coll.) 1900, M.D.

(Harvard Univ.) 1904, Boston.

Horwitz, Alexander Earle, A.B. (Washington Univ.) 1900, M.D. (ibid.) 1904,

St. Louis, Mo.

Hurst, Ira, A.M. (*Univ. of Virginia*) 1901, M.D. (*ibid.*) 1904,

Jones, Everett, M.D. (Boston Univ. Sch. of Med.) 1898.

Knowles, Robert Keneborough Black, A.B. (Acadia Coll.) 1897, M.D. (Harvard Med. Sch.) 1902,

Lung, George Augustus, A.M. (Univ. of Rochester) 1889, M.D. (Univ. of Penn.) 1886,

MacDonald, Ronald John, M.D. (Tufts Med. Sch.) 1907,

Moore, Seth Eastman, M.D. (Univ. of Penn.) 1898, Moran, Charles Leo, A.B. 1902, M.D. 1905,

Morse, George Randolph, M.D.C.M. (Dalhousie Univ.) 1902,

Nevers, Harry Hill, M.D. (Bowdoin Med. Sch.) 1903.

Outerson, Andrew Mansergh, M.D. (Jefferson Med. Coll.) 1906,

Owens, William Dunlop, M.D. (Georgetown Univ.) 1901,

Robinson, Samuel, A.B. 1898, M.D. 1902,

Sears, Frederic William, M.D. (Univ. of Vermont) 1888,

Sullivan, Joseph Lawrence, M.D. 1900,

Sylvester, Charles Porter, M.D. (Med. Dept., Univ. of Vermont) 1899,

Taft, Annie Elzina, M.D. (Tufts Med. Sch.) 1907,
Taggert, James Almon, Jr., M.D. (Univ. of Buffalo) 1896,

Talbot, Fritz Bradley, A.B. 1900, M.D. 1905,

Taylor, Dick Allison, M.D.C.M. (McGill Univ.) 1901,

Tomkies, James Scott, A.B. (*Tulane Univ.*) 1903, Towle, Bernard LeRoy, M.D. (*Bowdoin Med. Sch.*) 1897.

Wasson, Hilliard John, M.D.C.M. (McGill Univ.) 1892,

Watkins, Harris Ralph, s.B. (Dartmouth Coll.) 1888, M.D. (Univ. of Vermont) 1892,

Woodworth, Helen Ida, M.D. (Univ. of Michigan) 1887,

Leemont, Va.

Brookline.

Gloucester.

Washington, D.C.

Dorchester.
Washington, D.C.
Roxbury.

Chester, N.S.

Lawrence.

Windsor Locks, Conn.

Washington, D.C. Boston.

So. Hero, Vt. Boston.

Boston.
Chestnut Hill.

Salamanca, N. Y. Brookline.

Londonderry, N.S. Dallas, Tex.

Pawtucket, R.I.

Victoria, B.C.

Burlington, Vt.

Boston.

FOURTH CLASS.

Adler, Howard Felix, s.B. (Univ. of California) San Francisco, Cal. 1905, Bernstein, Harry Saul, A.B. 1904, Roxbury. Black, Edward Joseph, PH.B. (Brown Univ.) 1904, Providence, R.I. Bond, Earl Danford, A.B. 1900, St. Paul, Minn. Booth, Ernest Lazarus, A.B. 1905 (1904), E. Boston. Buxton, Bertram Harrington, A.B. (Brown Univ.) Providence, R.I. 1904. Chase, Heman Baker, s.B. (Amherst Coll.) 1904, Hyannis. *Curran, Edward James, Bathurst, Australia. Curtin, John Joseph, A.B. 1905, Waltham. So. Boston. Denning, Frederic Joseph, A.B. 1905, *Edwards, Martin Russ, Bellevue, Mich. Eveleth, Samuel Chester, A.B. (Amherst Coll.) 1904. Marblehead. FitzSimmons, Henry Joseph, A.B. 1903, Jamaica Plain. Gallison, James Murry, A.B. (Brown Univ.) 1904, Franklin. Gray, Edward John, s.B. (St. Joseph's Univ.) 1904, Salisbury, N.B. Hall, Robert Granville, s.B. 1905, Worcester. Hartshorne, Isaac, A.B. (Amherst Coll.) 1904, Methuen. Hennelly, Thomas Patrick, A.B. (Tufts Coll.) 1904, Waltham. Hersey, Harold Waters, s.B. 1904, Hingham. Hildreth, Robert Dudley, s.B. (Amherst Coll.) 1904, Westfield. Hiltner, Walter Garfield, s.B. (Nebraska Univ.) 1904, Lincoln, Neb. Holbrook, Charles Albert, A.B. 1900, Melrose. Jackson, Delbert Linscott, s.B. (Dartmouth Coll.) 1904, Chelsea. James, Reginald Sears, A.B. 1905, Cambridge. Jantzen, Francis Thomas, A.B. 1905, Lowell. Keever, Henry Floyd, A.B. 1905 (1904), Schuylkill Haven, Pa. Lane, Clarence Guy, A.B. 1905, Woburn. Lawrence, Charles Henry, Jr., A.B. 1903, Chicago, Ill. Lynch, William Francis, A.B. (Georgetown Univ.) 1904. E. Weymouth.

Fall River.

Boston.

McCarthy, Eugene Ambrose, A.B. (Brown Univ.)

McCrudden, Francis Henry, s.B. (Mass. Inst. of

Tech.) 1900,

^{*} Admitted by special vote of the Administrative Board.

McFarland, William, A.B. (Williams Coll.) 1904, Maguire, John Francis, A.B. (Boston Coll.) 1894, *Manotas, Arturo Fabio, Marion, James Willis Johnson, A.B. 1904, Allston. Markolf, Harry Foster, A.B. (Middlebury Coll.) Marks, Henry Kovál, A.B. (Leland Stanford Jr. Univ.) 1904, Miller, William Theodore, Jr., A.B. (Western Reserve Univ.) 1905, Moore, Fred Porter, s.B. 1905, Morrison, Hyman, A.B. 1904, Morse, George W, Jr., A.B. 1904, Newburgh, Louis Harry, A.B. 1905 (1904), Quigley, Raymond Augustine, s.B. (Mass. Agric. Coll.) 1904, Salisbury, Lucius Albert, A.B. (Brown Univ.) 1904, Sawyer, Edmund Houghton, s.B. (Univ. of California) 1904, Sharpe, William James Clyde, A.B. 1904, Sidis, Boris, A.B. 1894, A.M. 1895, PH.D. 1897, Smith, George Gilbert, A.B. 1905, Swift, John Baker, Jr., A.B. 1904, Tighe, Michael Aloysius, A.B. (Boston Coll.) 1903, Lowell. Toppan, Roland Lesley, A.B. 1904, Tuttle, Ralph Weare, s.B. 1905, Walsh, Edmund Francis, A.B. 1904, West, Frederick Orra, s.B. 1905, Whittemore, William Stewart, A.B. 1904, Wilkins, Samuel Henry, Jr., A.B. (Dartmouth Coll.) 1905, Worthen, Clarence Field, s.B. (Univ. of Vermont)

Greenwich, N.Y. Jamaica Plain. Barranguilla, Colombia, So. America.

W. Rutland, Vt.

San Francisco, Cal.

Cleveland, O. Watertown. Boston. Clinton. Cincinnati, O.

Brockton.

Sandy Creek, N. Y.

Riverside, Cal. Philadelphia, Pa. Brookline. E. Orange, N. J. Boston. Newburyport. E. Andover, N.H. Boston. Woburn. Cambridge.

W. Somerville.

Barre, Vt.

Fall River.

THIRD CLASS.

Almy, Thomas, A.B. 1905, Bailey, Charles Hervey, A.B. (Brown Univ.) 1903, Dorchester. Bowditch, Harold, A.B. 1905, Brigham, Francis Gorham, s.B. (Colgate Univ.) 1905,

Flushing, N.Y. Cohasset.

Jamaica Plain.

Bryant, Owen, A.B. 1904,

1903,

^{*} Admitted by special vote of the Administrative Board.

neria,

Cal.

Burns, Newell Bly, A.B. 1905, Danvers. Cornish, Solon Washington, A.B. (Dartmouth Coll.) 1905, Carver. Crothers, Bronson, A.B. 1905, Cambridge. Crowley, Thomas Francis, A.B. (Boston Coll.) Holliston. Daniels, Ora George, A.B. (Tufts Coll.) 1900, Chelsea. Davis, Nelson Clifton, s.B. 1905, Providence, R.I. Dennen, Ralph Waite, A.B. 1905, Waltham. Fitz, Reginald, A.B. 1906, Boston. Garfield, Walter Thompson, s.B. 1906, Cambridge. Ghoreyeb, Albert Alphonso Wood, A.B. (Syrian Protestant Coll.) 1904, Jaffa, Syria. Greeley, Hugh Payne, A.B. 1906, Lexington. Hall, Reverdy Morriss, Jr., A.B. 1905, Baltimore, Md. Healey, John Joseph, PH.B. (Brown Univ.) 1905, Providence, R.I. Hendricks, Henning Vitalis, s.B. (Worcester Polytechnic Inst.) 1903, Holden. Hepburn, James Joseph, A.B. 1906, Somerville. Hermann, Otto John, A.B. 1906, Roxbury. *Heydemann, Martin, Boston. Hinds, Robert Watson, A.B. 1905, Allston. Howard, Arthur Allison, PH.B. (Brown Univ.) Roxbury. Hunt, Roscoe Cadwell, A.B. (Carleton Coll.) 1905, Blue Earth, Minn. Hurley, Daniel Joseph, A.B. 1905, Charlestown. Kilgore, Eugene Sterling, s.B. (Univ. of California) 1904, Allendale, Cal. Lamson, Paul Dudley, A.B. 1905, Worcester. Laskey, Edward Philip, s.B. (Dartmouth Coll.) Dover, N. H. McKenna, Edward Francis, A.B. (Brown Univ.) 1905. Providence, R.I. Macomber, Donald, A.B. 1906, W. Newton. *Madden, John Joseph, PHARM.D. (Mass. Coll. of Pharm.) 1903, Worcester. *Manton, Walter Williamson, Detroit, Mich. Neill, Mather Humphrey, A.B. (Amherst Coll.) 1905, Pittsfield. Noonan, William Andrew, A.B. 1906, Cambridge. O'Keeffe, James Vincent, A.B. 1905, Revere.

Overlander, John Eliot, Ph.B. (Yale Univ.) 1905, Hiawatha, Kan.

^{*} Admitted by special vote of the Administrative Board.

Parker, Willard Stephen, A.B. 1906, Piqua, O. Patch, Arthur Lionel, A.B. (Brown Univ.) 1904, Stoneham. Pemberton, Frank Arthur, s.B. 1906, Auburndale. Preble, William Emerson, A.B. (Bowdoin Coll.) 1898, Litchfield, Me. Reid, William Duncan, A.B. 1906, Newton. Sampson, Edwin Field, s.B. 1906, Newtonville. Smith, Harold Heber, A.B. (Leland Stanford Jr. Univ.) 1905, Worcester. Smyth, Duncan Campbell, A.B. (St. Francis Xavier's Coll.) 1905, Port Hood, N.S. Sparrow, Charles Atsatt, A.B. (Amherst Coll.) 1906. Mattapoisett. Steinharter, Edgar Clifford, s.B. (Mass. Inst. of Tech.) 1906, Cincinnati, O. Swaim, Loring Tiffany, A.B. 1905, Cambridge. Tenney, Albert Seward, A.B. (Cornell Univ.) 1905. Cambridge. Titus, Raymond Stanton, A.B. 1905, No. Haverhill, N. H. Tron, Stanley Emanuele (Royal Liceo Gioberti, Turin, Italy), 1903, Turin, Italy. Usher, William Claude, A.M. (Queen's Univ.) Wicklow, Ont., Can. 1905, Webster, Harrison Briggs, A.B. 1905, Cohasset. Wilkiemeyer, Frederick Joseph, A.B. (Christian Brothers' Coll.) 1904, Newport, Ky. Young, Edward Lorraine, Jr., A.B. 1906, No. Hanover.

SECOND CLASS.

Abbott, John Woodward, A.B. (Bates Coll.) 1905, Lewiston, Me. Achorn, Kendall Lincoln, s.B. 1903, Boston. *Austin, Richard Sisson, Boston. Balcom, Kenneth Ira, A.B. (Colgate Univ.) 1905, Northboro. Barkan, Hans, A.B. (Leland Stanford Jr. Univ.) San Francisco, Cal. 1905, Bortree, Leo Williams, A.B. (Colorado Coll.) 1906, Colorado Springs, Colo. Bowers, George Francis Haskell, A.B. 1906, Clinton. Brayton, Howard Wheaton, PH.B. (Brown Univ.) Providence, R.I. 1906, Burgess, Alexander Manlius, A.B. (Brown Univ.) 1906, Portland, Me.

^{*} Admitted by special vote of the Administrative Board.

Burwell, Edmund Strudwick, Ph.B. (Univ. of No. Carolina) 1906, Chase, Peter Pineo, Ph.B. (Brown Univ.) 1906,

*Christian, Andrew Forest,

*Clarke, Harry Carver,

Clarke, Oliver Holman, A.B. (Leland Stanford Jr. Univ.) 1906,

Corcoran, George Bartlett, A.B. (Brown Univ.) 1906.

Cunningham, Thomas Edward, Jr., A.B. 1906,

Cutler, George David, s.B. 1907,

Dages, Oren Newton, A.B. (Princeton Univ.) 1906, Columbus, O.

Dane, Charles Murphy, A.B. 1906,

Dane, John Murphy, s.B. 1907,

Day, Alexander Alfred, A.B. (Clark Univ.) 1906, Everett.

Draper, Warren Fales, A.B. (Amherst Coll.) 1906.

Faison, Yates Wellington, A.B. (Davidson Coll.) 1906.

Finney, Royal Houghtelin, A.B. (Kansas Univ.) 1907.

Fitzpatrick, Francis Joseph, A.B. (Boston Coll.) 1903,

Forbes, Alexander, A.B. 1904, A.M. 1905,

Fox, Michael Bernard, A.B. (Clark Univ.) 1905,

French, Ralph Winward, A.B. 1907,

Gaboury, George Napoleon, A.B. (Yale Univ.) 1907,

Gamble, James Lander, A.B. (Leland Stanford Jr. Univ.) 1906,

Gardner, Edwin Daniels, A.B. 1906,

Gerber, Isaac, A.B. 1907,

an.

Grady, James Edward, Jr., A.B. (Holy Cross Coll.) 1906,

Haigh, Gilbert William, A.B. 1907,

*Hamilton, Burton Everett,

Harrington, Amos Thomson, A.B. (Yale Univ.) 1894, s.T.B. (ibid.) 1897,

Haskell, Charles Cheves, A.B. (Univ. of Virginia) 1905,

Hegarty, Joseph Gordon, A.B. 1907,

Hellmann, Robert Richard, A.B. 1906,

Hill, Prescott Tillinghast, A.B. (Brown Univ.) 1906,

Charlotte, N.C.

Hyannis.

Boston.

Fall River.

Boston.

W. Springfield. Cambridge.

Brighton.

Brookline. Brookline.

Newton Highlands.

Charlotte, N.C.

La Junta, Colo.

Charlestown.

Milton.

Worcester.

Fall River.

Chicopee Falls.

Palo Alto, Cal.

Holliston.

Malden.

Clinton. Lawrence.

Roxbury.

Lyons, N.Y.

Columbia, S.C.

Somerville.

Cincinnati, O.

Providence, R. I.

^{*} Admitted by special vote of the Administrative Board.

Himebaugh, Lester Clarence, A.B. (Colorado Coll.) 1906, Colorado Springs, Colo. Howes, Frank Miller, A.B. 1907, Rockland. Irving, Frederick Carpenter, A.B. 1906, Ogdensburg, N.Y. Ish, George William Stanley, A.B. (Yale Univ.) 1905, Little Rock, Ark. Jacques, Hector, A.B. (Laval Univ.) 1899, St. Hyacinthe, Quebec, Can. Kelley, Clarence Moore, A.B. 1906, Milton, N.H. Kellogg, Foster Standish, A.B. 1906, Boston. Kennedy, Philip Thomas, A.B. (Trinity Coll.) 1905. Hartford, Conn. Leonard, Ralph Davis, A.B. 1907, Melrose. Libby, Harold, A.B. 1907, Roxbury. Lightbody, William Russell, Ph.B. (Brown Univ.) 1906. Manchester, N. H. Lindsay, John Crandall, A.B. (Colby Coll.) 1906, Waterville, Me. *Lippman, Caro Wolf, San Francisco, Cal. Lyons, George Aloysius, A.B. (Boston Coll.) · 1905, Winchester. MacAusland, Andrew Roy, s.B. 1907, Taunton. McCabe, Francis Joseph, A.B. (Dartmouth Coll.) 1905, Randolph. McCarty, James Joseph, Jr., A.B. 1907, Lowell. McCrossan, Charles Leo, A.B. 1907, Somerville. MacMillan, Andrew Louis, Jr., A.B. (Dartmouth Coll.) 1905, Hanover. Madden, Leon Irving, A.B. (Clark Univ.) 1905, Agawam. Mahoney, Matthew Patrick, A.B. (Georgetown Lowell. Univ.) 1906, Marble, Henry Chase, A.B. (Clark Univ.) 1906, Worcester. Meader, Charles Nash, A.B. (Colby Coll.) 1906, Waterville, Me. *Millard, Jean Sears, Allston. Miller, Richard Henry, A.B. 1905, Fitchburg. Moore, George Albert, s.B. 1907, No. Monroe, N. H. Boston. *Niles, John Otis Garfield, Cambridge. *O'Donoghue, Edward John, Palmer, Walter Walker, s.B. (Amherst Coll.) Southfield. 1905. Ellsworth, Me. Parcher, George, A.B. (Bowdoin Coll.) 1906, Phillips, Charles Lewis, A.B. (Bates Coll.) 1906, Lewiston, Me.

Porter, Emery Moulton, Ph.B. (Brown Univ.)

*Popoff, Constantine,

1906,

Sliven, Bulgaria.

Boston.

^{*} Admitted by special vote of the Administrative Board.

Power, George Aloysius, A.B. (Holy Cross Coll.)	
1905,	Worcester.
*Prescott, George Lincoln,	Concord.
Rounseville, Wilfred Ellsworth, s.B. (Amherst	
Coll.) 1905,	Attleboro.
Ryder, Charles Tripp, A.B. 1906,	Andover.
Shedd, George Harold, A.B. 1905,	No. Conway, N.H.
*Sheppard, Philip Albert Edward, Stellenbosch, 6	Cape Town, So. Africa.
*Starr, Samuel,	Roxbury.
Tarleton, Leeson Oren, PH.B. (Brown Univ.)	
1906,	Concord, N.H.
Tomkies, James Scott, A.B. (Tulane Univ.)	
1903,	Dallas, Tex.
*Twombly, James Woodbury,	Boston.
Walsh, John Gormley, A.B. (Brown Univ.) 1906,	Providence, R.I.

FIRST CLASS.

THE CLASS.	
Bacher, Johann Adolph, A.B. (Leland Stanford	
Jr. Univ.) 1899,	San José, Cal.
Bagg, Edward Parsons, Jr., A.B. (Yale Univ.)	
1907,	Holyoke.
Bean, Charles Franklin Kingsbury, A.B. (Tufts	
Coll.) 1907,	W. Medford.
Birnie, Richard, Jr., s.B. 1907,	Charleston, S.C.
Blaisdell, John Harper, A.B. (Dartmouth Coll.)	
1907,	Winchester.
Bradford, Frederick Charles (Lawrence Scien-	
tific Sch. Senior),	Stoneham.
Breslin, John George (Harvard Coll. Senior),	Charlestown.
Briggs, Asa Sheldon, PH.B. (Brown Univ.) 1907,	Ashaway, R.I.
Brown, Harold Learned, A.B. (Brown Univ.)	
1907,	Sioux City, Ia.
Bruce, Jacob Baldwin, Jr. (Lawrence Scientific	
Sch. Senior),	All ston.
Buckley, George Ambrose, A.B. (Brown Univ.)	
1907,	Brockton.
Cahill, Harry Philip, A.B. (Holy Cross Coll.)	
1907,	Worcester.
Chandler, Harold Beckles, A.B. (Bowdoin Coll.)	
1907,	W. Newton.
Chickering, Henry Thorndyke, A.B. 1907,	Somerville.

^{*} Admitted by special vote of the Administrative Board.

*Ching, Ensang,

Clark, William Arthur, A.B. (Univ. of Illinois) 1905, A.M. (ibid.) 1907,

Clymer, George, A.B. 1905,

Cochrane, Robert Carlyle, s.B. (Dartmouth Coll.) 1907,

Cogswell, Eliot Sanborn, A.B. (Dartmouth Coll.) 1906,

*Cowles, Edward Spencer, M.D. (Univ. of Medicine, Va.) 1907,

Crabtree, Harvard Hersey, A.B. 1907,

Creamer, William Henry, A.B. (Holy Cross Coll.) 1907.

Dawson, Roger Paul, A.B. (Holy Cross Coll.) 1907.

Dempsey, James Edward, A.B. (Holy Cross Coll.) 1906.

Dulligan, Peter James, A.B. (Holy Cross Coll.) 1907.

Dunlap, Albert Menzo, A.B. (Univ. of Illinois) 1906.

Duston, Frank Algar, A.B. (Univ. of New Brunswick) 1898,

Emerson, Paul Waldo, A.B. 1907,

Enos, John Silveira, A.B. (Brown Univ.) 1907,

Eustis, Richard Spelman, A.B. 1907,

Eversole, George Edwin, A.B. 1907,

Feeley, Walter Clarence (Harvard Coll. Senior), Cambridge. Finnegan, Frank Augustine, A.B. (Holy Cross

Coll.) 1907,

Finnegan, Philip Joseph (Harvard Coll. Senior),

Forbes, Henry Stone, A.B. 1905,

Frank, Morris, A.B. 1908 (1907),

Fraser, Somers, A.B. 1907,

Gaunt, Frank Peyton, A.B. (Univ. of Missouri) 1906.

Greenebaum, Jacob Victor, A.B. 1908 (1907),

*Greydon, William Franklin,

Grover, Joseph Isaac, A.B. (*Brown Univ.*) 1907, Gruening, Ernest Henry, A.B. 1907,

Haight, Harry William, A.B. (Princeton Univ.) 1907,

Honolulu, Hawaii.

Urbana, Ill.
Washington, D.C.

Somerville.

Stratford, Conn.

Williamsburg, Va. Hancock, Me.

Fall River.

Waterbury, Conn.

Milford.

Worcester.

Savoy, Ill.

St. Stephen, N.B. Cheyenne, Wyoming. Providence, R.I.

Cambridge.

Seattle, Wash.

Lowell.

Salem.

Milton.

Boston.

E. Weymouth.

St. Louis, Mo. Cincinnati, O.

Woburn.

Providence, R.I. New York, N.Y.

Mendota, Ill.

^{*} Admitted by special vote of the Administrative Board.

Hammond, John Wilkes, Jr., A.B. (Dartmouth	
Coll.) 1907,	Cambridge.
Harris, Herbert Elisha, A.B. (Brown Univ.) 1907,	Providence, R.I.
Harvie, Peter Lyons (Harvard Coll. Senior),	Everett, Wash.
Hedblom, Carl Arthur, A.B. (Colorado Coll.)	
1907,	Aurora, Neb.
Hornor, Albert Aurelius, Jr., A.B. (Univ. of Vir-	
ginia) 1907,	Helena, Ark.
Houghton, James Tilley (Harvard Coll. Senior), S	Saratoga Springs, N. Y.
Hunt, Robert Bates, A.B. (Clark Univ.) 1907,	Brockton.
*Jones, Ellis William,	Boston.
Lazarus, Louis, A.B. 1906,	Roxbury.
Leland, George Adams, Jr., A.B. 1907,	Boston.
Lincoln, George Chandler, A.B. 1905,	Worcester.
McCann, Charles Daniel, PH.B. (Brown Univ.)	
1907,	Brockton.
McCarty, Franklin Bennett, s.B. (Univ. of Notre	
Dame) 1907,	Lynn.
McMichael, Earle Haggett, A.B. (Bowdoin Coll.)	
1907,	E. Boston.
Main, Roscoe Conkling, A.B. (Univ. of Illinois)	
1906, A.M. (ibid.) 1907,	Pittsfield, Ill.
Mann, William Leake, Jr., PH.B. (Southwestern	
Univ.) 1903,	Georgetown, Tex.
Marshall, Frank Fremont, A.B. 1907,	Worcester.
Means, James Howard, A.B. 1907,	Boston.
Miller, Alvah Strong, A.B. (Univ. of Rochester)	
1907,	Rochester, N.Y.
Molina, Manuel Octavio, A.B. (Colegio Nacional,	
Sud.) 1905, Buenos Ayre	es, Argentine Republic.
Morrill, Ashley Baker (Lawrence Scientific Sch.	
Senior),	Concord, N.H.
Murphy, John Joseph, A.B. (Holy Cross Coll.)	
1907,	Cambridge.
Naughton, Henry Joseph, A.B. (Holy Cross Coll.)	
1906,	Worcester.
Nelson, Christian Augustus, A.B. (Brown Univ.)	
1903,	Quincy.
Nelson, Luther Townsend, A.B. (Boston Univ.)	
1905,	Boston.
O'Hare, James Patrick, A.B. 1908 (1907),	Milton.
O'Keefe, Edward Scott, A.B. 1907,	Lynn.

^{*} Admitted by special vote of the Administrative Board.

O'Sullivan, William Daniel, L.B. (Dartmouth	T
Coll.) 1900, *Pattajo, Christ. Alexis (College of Monastir,	Lawrence.
	, Monastir, Roumania
Pease, Edmund Morris, A.B. (Pomona Coll.)	
1904,	Claremont, Cal.
Penix, John Harve, A.B. (William Jewell Coll.)	
1906,	Bowling Green, Mo.
Percy, Karlton Goodsell, A.B. (Yale Univ.) 1907,	Brookline.
Perry, Harold Edgar, A.B. 1907,	Chelsea.
*Peterson, Hugo Oliver,	Worcester.
Pierce, Glenn McKillips, Ph.B. (Westminster Coll.) 1906,	W. Elizabeth, Pa.
Porter, Miles Fuller, Jr., A.B. (Williams Coll.)	W. Ettzaoett, 1 a.
1907.	Fort Wayne, Ind.
Prizer, Edward Levis, A.B. 1908 (1907),	So. Orange, N.J.
Reed, Floyd Orton, s.B. (Univ. of Rochester)	200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1907,	Berkshire, N. Y.
Reid, Henry Squire, PH.B. (Syracuse Univ.) 1907,	Rome, N.Y.
Reynolds, Ralph Leavitte, A.B. (Colby Coll.)	
1906,	Waterville, Me.
Richards, Dexter Newell, A.B. (Leland Stanford Jr. Univ.) 1907,	Gridley, Cal.
Richardson, Clarence Hudson, A.B. (Lincoln	J
Univ.) 1901,	Philadelphia, Pa.
Richardson, Henry Stephen, A.B. (Amherst Coll.)	
1904,	Franklin.
Riley, William Bernard, A.B. (Holy Cross Coll.)	a
1905,	Central Falls.
Robinson, Henry Ashton (Harvard Coll. Senior),	Hingham.
Ruggles, Howard Edwin, A.B. (Leland Stanford Jr. Univ.) 1907,	Ross, Cal.
Russell, John Scott, A.B. (Williams Coll.) 1907,	Massena, N. Y.
Sanford, Rowland Rufus, A.B. (Acadia Coll.)	22000001100, 217 27
	gram, Madras, India.
Sheldon, Russell Firth, A.B. 1907,	Lynn.
Smith, William David, A.B. 1899,	Gardner.
Stankard, Thomas Francis, A.B. (Holy Cross Coll.) 1904,	Waltham.
Stockton, Frederick Eugene, A.B. (Lafayette	77 000 000 1101
Coll.) 1906,	Seymour, Conn.
There is William Developing In (Hanney J. Call)	,

^{*} Admitted by special vote of the Administrative Board.

Boston.

Temple, William Franklin, Jr. (Harvard Coll.

Senior),

Terrell, Alexander Bismarck, s.B. (Univ. of Chicago) 1907,	Fort Worth. Tex.						
Thompson, Austin Bassett, A.B. (Williams Coll.)							
1907,	Orange, N.J.						
Whidden, Rae Wygant (Harvard Coll. Senior),	Portland, Ore.						
White, Paul Dudley (Harvard Coll. Senior),	Roxbury.						
Whitney, George Harold,	Lexington, Ky.						
, accept accept	220000090000, 1290						
SPECIAL STUDENTS.							
Bernard, Emory Darwin, M.D. (Saginaw Valley							
Med. Coll.) 1898,	Port Arthur, Tex						
Farmer, Chester Jefferson,	Andover.						
Wheeler, Ernest Henry, M.D. (Dartmouth Med.							
Coll.) 1892,	Augusta, Me.						
* Admitted by special vote of the Administra	tive Board.						
SUMMARY.							
In Courses for Graduates, 1907-08 (to N	ov. 11) 45						
FOURTH CLASS	57						
THIRD CLASS	55						
SECOND CLASS	84						
FIRST CLASS	101						
SPECIAL STUDENTS	3						
	345						
COUNTED MORE THAN ONCE	2						
Total	343						
In Courses for Graduates, 1906-07, after p							
of Catalogue for 1906–07	47						
In Summer Courses, 1907	194						

GRADUATES OF COLLEGES.

Acadia College 1	University of Missouri 1
Amherst College 10	University of Nebraska 1
Bates College 2	University of New Brunswick 1
Boston College 5	University of North Carolina 1
Boston University	University of Notre Dame 1
Bowdoin College 4	Pomona College 1
Program University	Princeton University 2
Brown University	Queen's University (Toronto, Can.) 1
	University of Rochester
Carleton College 1	Royal Liceo Gioberti (Turin, Italy) . 1
University of Chicago 1	Southwestern College
Christian Brothers' College (St. Louis) 1	Southwestern College
Clark University 5	St. Francis Xavier's College 1
Colby College 3	St. Joseph's University 1
Colegio Nacional, Sud. (Argentine Rep.) 1	Syracuse University 1
Colgate University 2	Syrian Protestant College 1
Colorado College 3	Trinity College (Conn.) 1
Cornell University 1	Tufts College
Dartmouth College 11	Tulane University 1
Davidson College 1	University of Vermont
Georgetown University 2	University of Virginia 2
Harvard University	Western Reserve University 1
Holy Cross College	Westminster College 1
University of Illinois	William Jewell College 1
Kansas University	Williams College 4
Lafavette College	Worcester Polytechnic Institute 1
	Yale University 6
Ectand Steinford St. Chirtersty	Total
Lincoln University 1	Total Number College Graduates 266
Massachusetts Agricultural College . 1	Total Transcr Conege Graduates 1 200
Massachusetts Institute of Technology 2	No
Middlebury College 1	Number of Colleges 57

THE SUMMER SCHOOL OF MEDICINE.

Abbott, Henry Wilson,

Almy, Thomas, A.B. 1905,

Alward, Mark, M.D. (Buffalo Med. Coll.) 1887,

Anderson, Reuben Bennett, M.D. (Tulane Med. Sch.) 1884,

Anderson, Wilhelm Sigurd, M.D. (Univ. of Minnesota) 1903,

Angwin, William Arnold, Ph.B. (Pacific Univ.) 1901, M.D. (Coll. of Phys. and Surg., San Francisco, Cal.) 1903,

Austrian, Charles Robert, A.B. (Johns Hopkins Univ.) 1904,

Ayer, Thomas Herbert, M.D. (Bowdoin Med. Sch.) 1893,

Baker, Grear Hill, M.D. (Med. Coll. of Ohio) 1903,

Baker, Walter Eugene, M.D. (Drake Univ. Coll.

of Medicine) 1907,
Barry, Ray Kent, M.D. (Univ. of Buffalo) 1898,
Payline Joseph William M.D. (Univ. of Buffalo)

Bayliss, Jacob William, M.D. (Univ. of Buffalo)
1906,

Berry, Elmer, s.B. (*Univ. of Nebraska*) 1901, Bolster, William Wheeler, A.B. (*Bates Coll.*) 1895, Bond, William Lincoln, M.D. (*Univ. of Toronto*)

1890, Booth, Burton Sylvander, M.D. (Union Med. Sch.,

Bowditch, Harold, A.B. 1905,

Albany),

Bowen, Samuel Cecil, M.D. (Med. Coll. of Virginia) 1905,

Bray, Charles William, A.B. (*Univ. of Minnesota*) 1891, M.D. (*ibid.*) 1895,

Brigham, Francis Gorham, s.B. (Colgate Coll.) 1905,

Brindisi, Rocco, M.D. (Royal Univ. of Naples) 1884,

Waterville, Me.

Fall River.

Brownville, Me.

Sherman, Tex.

Warren, Minn.

Washington, D. C.

Baltimore, Md.

Westboro.

Cincinnati, O.

Des Moines, Ia. E. Aurora, N. Y.

Buffalo, N. Y. Springfield. Auburn, Me.

Eglinton, Ont., Can.

Troy, N.Y. Jamaica Plain.

Richmond, Va.

Biwabik, Minn.

Flushing, N.Y.

Boston.

Brown, George Franklin, M.D. (Bellevue Hosp. Med. Coll.) 1897,

Bruce, Harold Milton, A.B. 1902, M.D. 1906,

Bryant, Owen, A.B. 1904,

Buker, Edson Bayard, s.B. (Univ. of Maine) 1904, Waldoboro, Me. Bush, Arthur Dermont, M.D. (Coll. of Phys. and

Surg., Atlanta) 1901,

Butterworth, William Walton, M.D. (Tulane Med. Sch.) 1894,

Canney, Ellen Rose, M.D. (Univ. of Michigan) 1898,

Carboni, Giovanni, M.D. (Univ. of Naples) 1892,

Carlton, Frank Carr, s.B. 1903, Carothers, Robert, M.D. (Med. Coll. of Ohio) 1890,

Castle, Catharine White, M.D. (Boston Univ. Sch. of Medicine) 1903,

Chace, Fenner Albert, A.B. 1897, M.D. 1905,

Christian, Andreas Forest,

Clendening, Logan, M.D. (Univ. of Kansas) 1907, Courtney, Angelia Martha, A.B. (Radcliffe Coll.) 1906,

Crane, Bayard Taylor, M.D. 1901,

Crane, James Wilder,

Crockett, Melvin Butcher, M.D. (Univ. Coll. of Medicine, Richmond) 1895,

Crossman, Edgar Orin, M.D. (Univ. of Vermont) 1887,

Curl, Holton C., M.D. (Iowa Med. Coll.) 1894, M.D. (Univ. of California) 1897,

Currier, Mary Barnard, M.D. (Boston Univ. Sch. of Medicine) 1893,

Cutler, Charles Newton, M.D. 1898,

Daly, Timothy Joseph, M.D. 1897,

Daniels, Ora George, A.B. (Tufts Coll.) 1900,

Davis, John Lewis, M.D. (Bowdoin Med. Sch.) 1906.

DeAmezaga, Gualterius, M.D. (Univ. of Genoa) 1889.

DeBuys, Laurence Richard, M.D. (Tulane Med. Sch.) 1904,

Dennen, Ralph Waite, A.B. 1905,

Donnelly, James Harvey, A.B. (Williams Coll.) 1894, M.D. (Boston Univ. Sch. of Medicine) 1907,

Sherman, Tex.

Brookline. Cohasset.

New Orleans, La.

New Orleans, La.

New Bedford.

Boston.

Salem.

Cincinnati, O.

Somerville.

Fall River.

Boston.

Kansas City, Mo.

Concord.

Rutland.

Norwood.

Tazewell, Va.

Lisbon, N.H.

Washington, D.C.

Somerville.

Chelsea.

Lawrence.

Chelsea.

Portland, Me.

Boston.

New Orleans, La. Waltham.

Hoosick, N.Y.

Dubois, Edward Julien, M.D. (Central Coll. of Phys. and Surg., Indianapolis) 1905,

Dunlap, Fayette, A.B. (Centre Coll., Danville) 1874, M.D. (Univ. of Louisiana) 1879,

Eastman, Eugene Samuel, M.D. (Boston Univ. Sch. of Medicine) 1904,

Fenner, Erasmus Darwin, A.B. (Tulane Univ.) 1888, M.D. (ibid.) 1892,

Fischel, Ellis, A.B. 1904,

Fitz, Reginald, A.B. 1906,

Flemming, Theodore Ernest, M.D. (Univ. of Buffalo) 1907,

Flippin, James Carroll, M.D. (Univ. of Virginia) 1961,

Ford, Leonard Harris, s.B. (Univ. of Maine) 1899, M.D. (Bowdoin Med. Sch.) 1906,

Gately, Mary Agatha Murray,

Ghoreyeb, Albert Wood, A.B. (Syrian Protestant Coll.) 1904,

Goodrich, Judd, M.D. (Univ. of Minnesota) 1895, Gray, John Eugene, M.D. (Bowdoin Med. Sch.) 1896,

Greeley, Hugh Payne, A.B 1906,

Greene, John Adolph, A.B. (Bowdoin Coll.) 1903, Hale, Edith, A.B. (Radeliffe Coll.) 1901, M.D. (Johns Hopkins Med. Sch.) 1905,

Hall, Annie Bartram, M.D. (Woman's Med. Coll. of Pennsylvania) 1891,

Halpin, Andrew James, M.D. 1889,

Hamilton, Samuel, Jr., A.B. (Princeton Univ.) 1901, M.D. (Hahnemann Med. Coll. of Pennsylvania) 1905,

Hammond, Charles, M.D. (Yale Med. Sch.) 1904, Hamner, George Pinkard, M.D. (Univ. of Virginia) 1903,

Hansel, Charles Emil, M.D. (Coll. of Phys. and Surg., Chicago) 1897,

Hanske, Edward Albert, M.D. (Louisville Med. Coll.) 1901,

Harris, Alexander Everett, M.D. (Jefferson Med. Coll.) 1901,

Hartshorne, Isaac, A.B. (Amherst Coll.) 1904, Haskell, Charles Cheves, A.B. (Univ. of Virginia) 1905, Indianapolis, Ind.

Danville, Ky.

Boston.

New Orleans, La. St. Louis, Mo. Boston.

Buffalo, N.Y.

Charlottesville, Va.

E. Eddington, Me.
Boston.

Jaffa, Syria. St. Paul, Minn.

Brunswick, Me.
Cambridge.
Rumford Falls, Me.

Boston.

Philadelphia, Pa. Lowell.

Pittsburg, Pa.
Hanover.

Schuyler, Va.

So. Bend, Ind.

Bellevue, Ia.

Little Rock, Ark.
Methuen.

Jolumbia, S.C.

Hasty, Willis LeRoy,

Hatch, Royal, A.B. (Dartmouth Coll.) 1900, M.D. (Harvard Med. Sch.) 1904,

Hazen, Cyrus Hamilton, M.D. (Baltimore Med. Coll.) 1901,

Heckscher, Richard Maurice,

Heitzman, Charles William, M.D. (Tulane Med. Sch.) 1899,

Henderson George Dallas, M.D. (Western Reserve Univ. Med. Sch.) 1900,

Hinds, Robert Watson, A.B. 1905,

Hudnut, Paul Albert, M.D. 1898,

Hunt, Harold Otis,

Hurley, Daniel Joseph, A.B. 1905,

Ish, George William Stanley, A.B. (Yale Univ.) 1905,

Johnson, John Jefferson, M.D. (Marion-Sims Coll. of Med.) 1896,

Jordan, William Henry, M.D. (Maryland Med. Coll.) 1901,

Kellie, Kenneth Alloa Harrison, M.R.C.S. (Eng.), L.R.C.P. (London) 1903, B.C. (Cambridge, Eng.) 1904, M.B. (ibid.) 1905,

Keough, Matthew Joseph, M.D. (Albany Med. Coll.) 1905,

Knowles, Robert Kenerorough Black, A.B. (Acadia Coll.) 1897, M.D. (Harvard Med. Sch.) 1902,

Kraemer, Edward Henry, M.D. (Univ. of Buffalo) 1907,

Lamson, Paul Dudley, A.B. 1905,

Larochelle, Joseph Raoul, M.D. (Laval Univ., Quebec) 1907,

Lathrop, Ruth Webster, A.B. (Wellesley Coll.) 1883, M.D. (Woman's Med. Coll. of Pennsylvania) 1891,

Law, William Lamar, M.D. (Tulane Med. Sch.) 1894,

Lawson, Stuart Johnston, M.D. (Univ. of Virginia) 1905,

Litterer, William, A.M. (Vanderbilt Univ.) 1900, M.D. (ibid.) 1902,

Lowney, John Francis, M.D. (Tufts Med. Sch.) 1900,

Thorndike, Me.

Boston.

E. Corinth, Vt. Philadelphia, Pa.

Muskogee, I.T.

 $Holyoke.\ Allston.$

Wellesley.
Newtonville.

Charlestown.

Little Rock, Ark.

Harrison, Ark.

Providence, R.I.

London, Eng.

Cohoes, N.Y.

Gloucester.

Buffalo, N.Y. Worcester.

Manchester, N.H.

Philadelphia, Pa.

Montgomery, Ala.

Wellesley Hills.

Nashville, Tenn.

Fall River.

Lull, Cabot, Jr., M.D. (Univ. of Michigan),
Lung, George Augustus, A.M. (Univ. of Rochester)
1889, M.D. (Univ. of Pennsylvania) 1886,

McCafferty, John Aloysius, A.B. (Manhattan Coll.) 1895, M.D. (Columbia Univ.) 1899,

McDermott, William Vincent, M.D. 1896,

Mack, John Alexander, M.D. (Univ. of Vermont) 1895,

McKee, George Joseph, M.D. 1906,

MacMichael, Earl Haggett, A.B. (Bowdoin Coll.) 1907,

MacMillan, Andrew Louis, Jr., A.B. (Dartmouth Coll.) 1905,

Macomber, Donald, A.B. 1906,

McPherson, William Ellsworth, M.D. 1891,

Mahoney, Stephen Andrew, A.B. (Holy Cross Coll.) 1885,

Manchester, Ward Beecher, M.D. (*Univ. of Buffalo*) 1907,

Manning, Isaac Hall, M.D. (Long Island Coll. Hosp.) 1897,

Manton, Walter Williamson,

Marston, Henry Edward, A.B. (Bowdoin Coll.) 1899.

Martin, David Lorenzo, A.B. (Grove City Coll., Pa.) 1897, s.t.b. (Boston Univ.) 1900, ph.d. (ibid.) 1902,

Mason, Elizabeth Spaulding, A.B. (Smith Coll.) 1887,

Meader, Isabel, M.D. (Woman's Hosp. Med. Coll., Chicago) 1887,

Mendenhall, Jean Clements, M.D. (Drake Univ. Coll. of Med.) 1907,

Mendenhall, Walter Leslie, M.D. (Drake Univ. Coll. of Med.) 1906,

Merrill, Charles Henry, A.B. (Dartmouth Coll.) 1901, M.D. (Harvard Med. Sch.) 1905,

Michie, Henry Clay, Jr., s.B. (Virginia Polytechnic Inst.) 1903, M.D. (Univ. of Virginia) 1907,

Mitchell, Frederick William, M.D. (Baltimore Med. Coll.) 1898,

Montague, Charles Elbert, A.B. (Williams Coll.) 1891, M.D. (Boston Univ. Sch. of Med.) 1896,

Wetumpka, Ala.

Washington, D.C.

New York, N.Y. Salem.

Crompton, R.I. Allegheny, Pa.

E. Boston.

Hanover.
W. Newton.
Somerville.

Holyoke.

Batavia, N.Y.

Chapel Hill, N.C. Detroit, Mich.

No. Anson, Me.

Boston.

Northampton.

Watertown, N.Y.

Des Moines, Ia.

Des Moines, Ia.

Kennebunkport, Me.

Charlottesville, Va.

Houlton, Me.

Wakefield.

Mooney, Robert Copeland,

Mullin, Seth Smith.

Murdock, Frederick William, M.D. 1899,

Nelson, Christian Augustus, A.B. (Brown Univ.) 1903,

O'Connor, John Christopher, s.B. (Dartmouth Coll.) 1902, M.D. (ibid.) 1905,

Ogden, William Edward,

Ohneserg, Karl, M.D. (Univ. of Penn.) 1895,

Otto, Jacob S., A.B. (Princeton Univ.) 1895, M.D. (Univ. of Buffalo) 1898,

Parker, James Donaldson, A.M. (Upper Iowa Univ.), M.D. (Univ. of Michigan),

Parker, Willard Stephen, A.B. 1906,

Parsons, Hauston Haddon, M.D. (Univ. of Virginia) 1907,

Peck, Martin William, s.B. (Dartmouth Coll.) 1902,

Pemberton, Frank Arthur, s.B. 1906,

Pierce, Glenn McKillips, B.P. (Westminster Coll.)
1906,

Piper, Arthur Lewis, M.D. (Univ. of Buffalo) 1907,

Potter, John Garfield,

Potter, Peter, s.B. (*Missouri Univ.*) 1901, M.D. (*ibid.*) 1903,

Potter, Philip Sheridan, A.B. (Yale Univ.) 1899, M.D. (Columbia Univ.) 1903,

Price, Killian Adolphus, M.D. (*Univ. of Virginia*) 1907,

Rankin, Robert McClelland, M.D. (Ohio Med. Coll.)

Regan, Frank Albert,

Reid, William Duncan, A.B. 1906,

Rice, Allan Gordon, A.B. (Toronto Univ.) 1906,

Rice, John Evarts, A.B. (Boston Univ.) 1903, M.D. (Harvard Med. Sch.) 1907,

Richardson, Henry Stephen, A.B. (Amherst Coll.) 1904,

Rolles, James Alfred, M.D. (Toronto Univ. Med. Sch.) 1896,

Rounseville, Wilfred Ellsworth, s.B. (Amherst Coll.) 1905,

Gloversville, N.Y. Vinalhaven, Me. Brockton.

Quincy.

Salem.

Toronto, Can. Washington, D.C.

Buffalo, N.Y.

Fayette, Ia. Piqua, O.

Missoula, Mont.

Lynn.
Auburndale.

W. Elizabeth, Pa.

Buffalo, N. Y.
Providence, R.I.

St. Louis, Mo.

North Adams.

Hickory, N.C.

Covington, Ky. Boston.

Newton.

Toronto Junction, Can.

Worcester.

Franklin.

Chatham, Can.

Attleboro.

Sargent, Oscar Franklyn Libby, M.D. (Boston Univ. Sch. of Med.) 1902,

Sawyer, Edmund Houghton, s.B. (Univ. of California) 1904,

Scott, Francis Joseph, M.D. (Albany Med. Coll.), Seilheimer, Frederick, M.D. (Albany Med. Coll.) 1907,

Sherburne, Frederick William,

Shurtz, Richard Elmer, M.D. (Rush Med. Coll.) 1897,

Sissa, Silvio,

Smith, Charles Mason, A.B. (Fredericksburg Coll.) 1903, M.D. (Univ. of Virginia) 1907,

Soule, William Lamson, A.B. (Colby Coll.) 1890, M.D. (Boston Univ. Sch. of Med.) 1896,

Sproull, John, M.D. (Boston Univ. Sch. of Med.) 1901,

Staples, Ivan,

Steinharter, Edgar Clifford, s.B. (Mass. Inst. of Tech.) 1906,

Stewart, Ralph Carroll, A.B. (Bowdoin Coll.) 1905,

Stone, George Henry, A.B. (Bowdoin Coll.) 1905, Storck, Jacob Ambrose, PH.M. (Tulane Univ.) 1885, M.D. (ibid.) 1893,

Stover, Arthur Reese, A.M. (Baker Univ.) 1890, M.D. (Missouri Med. Coll.) 1893,

Stryker, Minnie, A.B. (Mt. Holyoke Coll.) 1894, M.D. (Woman's Med. Coll. of Pennsylvania) 1898,

Swaim, Loring Tiffany, A.B. 1905,

Tenney, Albert Seward, A.B. (Cornell Univ.) 1905, Cambridge.

Tenney, William Northend, M.D. 1895,

Tilley, William Taft, M.D. (Univ. of Vermont) 1900,

Titus, Raymond Stanton, A.B. 1905,

Torrey, Julia Maria, A.B. (Boston Univ.) 1888,

Trahan, Edward Onesiphore, A.M. (Spring Hill Coll.) 1895, M.D. (Tulane Med. Sch.) 1899,

Usher, William Claude, A.M. (Queen's Univ.) 1905, Wicklow, Can. Van Duyn, Edward Seguin, s.B. (Princeton Univ.)

1894, M.D. (Syracuse Univ. Coll. of Med.) 1897, Syracuse, N.Y.

Viger, Joseph Avila, M.D. (Laval Univ., Montreal) 1895,

St. Eugene of Grantham, Can.

Haverhill.

Riverside, Cal. Cohoes, N.Y.

Buffalo, N.Y. Boston.

Champaign, Ill. E. Boston.

Fredericksburg, Va.

Lynn.

Haverhill. Limerick, Me.

Cincinnati, O.

New Vineyard, Me. Portland, Me.

New Orleans, La.

Little Rock, Ark.

Foochow, China. Cambridge. Canton.

Burlington, Vt. No. Haverhill, N. H. Baltimore, Md.

New Orleans, La.

Wade, Ethel Marion, A.B. (Trinity Univ., Toronto) 1904, Hamilton, Can. Walker, Edwin, M.D. (Evansville Med. Coll.) 1874, M.D. (Univ. of New York City) 1879, Evansville, Ind. Walker, Joseph, St. George, Utah. Wasson, Hilliard John, M.D.C.M. (McGill Univ.) Victoria, B.C. Wayne, James Robert, Jr., M.D. (Little Rock Coll. of Phys. and Surg.) 1907, Little Rock, Ark. Weaver, Harry Vernon, M.D. (Boston Univ. Sch. of Med.) 1893, Springfield. Webster, Harrison Briggs, A.B. 1905, Cohasset. Welch, Francis Joseph, A.B. (Bowdoin Coll.) 1903, M.D. (ibid.) 1906, Portland, Me. Wells, Charles Edward, Burlington, Vt. Whitney, George Burgess, A.B. (Bowdoin Coll.) 1904. Marlboro. Williams, Carl Alonzo, D.D.s. (New York Coll. of Dentistry) 1892, M.D. (Hahnemann Med. Coll. of Pennsylvania) 1895, New London, Conn. Willis, Byrd Charles, Jr. Alexandria, Va. Wilson, Walter John, M.D. (Detroit Coll. of Med.) 1897, Detroit, Mich. Wilson, William Lewis, A.B. (Univ. of Rochester) 1900, M.D. (New York Homeo. Med. Coll.) 1904, Niagara Falls, N. Y. Witt, William Henry, A.B. (Vanderbilt Univ.) 1887, M.D. (ibid.) 1894, Nashville, Tenn.

No. Hanover.

Young, Edward Lorraine, Jr., A.B. 1906,





ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

OF

HARVARD UNIVERSITY

FOR

1908-09

SECOND EDITION



CAMBRIDGE

Published by the University

1908

1908.								1909.												
JULY.							JANUARY.							JULY.						
Su	Мо	Tu	W	Th	Fr	Sa	Su	Мо	Tu	W	Th	Fr	Sa	Su	Мо	Tu	W	Th	Fr	Sa
5 12 19 26	6 13 20 27	7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25	3 10 17 24 31	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	1 8 15 22 29	2 9 16 23 30	11 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31
		ΑU	IGU	JST	١.			F.	EBI	RU.	AR	Y.		AUGUST.						
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31						7 14 21 28	1 8 15 22	9 16 23	3 10 17 24	11 18 25	5 12 19 26	6 13 20 27	1 8 15 22 29	9 16 23 30	3 10 17 24 31	11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	
	SI	EPI	rei	IB	ER.		MARCH.						SEPTEMBER.							
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MEDICAL SCHOOL CALENDAR.

1908.

Sept. 24, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.

Sept. 30, Wednesday. Examination in Chemistry for admission.

Oct. 1, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.

Oct. 1, Thursday. Last day for receiving applications for the Bullard Fellowships.

Oct. 31, Saturday. Last day for receiving essays for the William H. Thorndike Prize.

Nov. 26, Thursday. Thanksgiving Day: a holiday.

Nov. 30, Monday. Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1908, TO JAN. 2, 1909, INCLUSIVE. 1909.

Jan. 1, Friday. Last day for receiving dissertations for the Boylston Medical Prizes.

Jan. 15, Friday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1909.

Jan. 29, Friday. Mid-year Examinations begin.

Jan. 30, Saturday. Payment of the second instalment of the tuition fee is required on or before this date.

Feb. 1, Monday. Second half-year begins.

Feb. 22, Monday. Washington's Birthday: a holiday.

April 1, Thursday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 18 TO APRIL 24, INCLUSIVE.

- May I, Saturday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 1, Saturday. Last day for receiving applications of candidates for the degree of M.D. in 1909.
- May 31, Monday. Memorial Day: a holiday.
- June 1, Tuesday. Last day for receiving applications for Scholarships for 1909-10 (except the Cheever and Hayden Scholarships).
- June 1, Tuesday. Examinations begin.
- June 30, Wednesday. Commencement.

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 29, INCLUSIVE.

- July 1, Thursday. Examination in Chemistry for admission.
- Sept. 23, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 29, Wednesday. Examination in Chemistry for admission.
- Sept. 30, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Oct. 1, Friday. Last day for receiving applications for the Bullard Fellowships.
- Nov. 1, Monday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 25, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Tuesday. Last day for receiving applications for the Cheever and Hayden Scholarships.

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STANDING COMMITTEES FOR THE MEDICAL SCHOOL.

Buildings.—Dr. J. Warren (Chairman), and Drs. Bremer and C. Frothingham, Jr.

Course of Study. — Dr. Christian (Chairman), and Drs. Shattuck, Minot, Burrell, Mallory, Cannon, and Taylor.

Library. — Dr. Joslin (Chairman), and Drs. Minot, W. T. Porter, Southard, and Tyrode.

Admission. — Dr. Christian (Chairman), and Drs. Folin and Lewis. Students' Health. — Dr. Ernst (Chairman), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

THE HARVARD MEDICAL SCHOOL.

BOSTON.

GENERAL STATEMENT.

Three professorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of Bachelor of Medicine; beginning with 1811, the degree has been Doctor of Medicine. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first Medical College was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course of study is so arranged that the first three years are devoted to prescribed

work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth-year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 65.

The degree of Doctor of Medicine *cum laude* is given to candidates who obtain an average of 80 per cent. or over in all the required examinations.

Beginning in 1906, special students, not candidates for the degree of Doctor of Medicine, will be admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 77.

Pamphlets descriptive of the many courses of study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Secretary of the Harvard Medical School, Longwood Avenue, Boston, Mass.

The New Buildings.

In September, 1906, the Medical School removed from its quarters on Boylston Street to commodious new buildings on Longwood Avenue, distant about a mile from the old building. At the new site the School possesses twenty-six acres of land. Eleven acres are now occupied by the Medical School buildings; the other fifteen are reserved for hospitals which, it is hoped, will be built on this ground in the near future.

The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—
(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, biological chemistry, and theory and practice of physic; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) hygiene, pharmacology, comparative pathology, and surgical research.

The laboratory buildings are all constructed on one general plan, — two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been

designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms were originally designed. These buildings provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is indebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

ADMINISTRATIVE BOARD.

HENRY A. CHRISTIAN, M.D., Dean, and Hersey Professor of the Theory and Practice of Physic.

CHARLES M. GREEN, M.D., Professor of Obstetrics.

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FRANCIS B. HARRINGTON, M.D., Lecturer on Surgery.

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Office Hours of the Dean, Fridays, 4 to 5 p.m.; of the Secretary, Tuesdays and Thursdays, 12 m. to 1 p.m.

STANDING COMMITTEES.

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Scholarships and Students' Aid. — Dr. Christian, (Chairman), and Drs. Sears, Cannon, and C. Frothingham, Jr. (ex-officio).

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PHILIP H. SYLVESTER, M.D., Assistant in Pediatrics,

Newton Centre.

ARIAL W. GEORGE, M.D., Assistant in Anatomy, 234 Marlborough St. EDWARD J. CURRAN, M.D., Assistant in Anatomy,

Harvard Medical School.

ROY G. HOSKINS, A.M., Teaching Fellow in Physiology, Harvard Medical School.

JOHN H. WILSON, Ph.D., Research Assistant in Pathology, Harvard Medical School.

DAVID L. WILLIAMS, M.D., Assistant in Materia Medica, 29 Gloucester St.

AUSTIN TEACHING FELLOWS.

CLEAVELAND FLOYD, M.D., in Bacteriology,

Harvard Medical School.

FRANK L. RICHARDSON, M.D., in Surgery, 1074 Boylston St. EUGENE L. PORTER, A.M., in Physiology, Harvard Medical School. RICHARD E. SCAMMON, A.M., in Histology and Em-

bryology, Harvard Medical School.

WARREN MACPHERSON, A.M., in Comparative Pathology, Weld 21, Cambridge.

FRANKLIN P. JOHNSON, A.B., in Histology and
Embryology, Harvard Medical School.

THE HARVARD MEDICAL SCHOOL.

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ADMISSION OF STUDENTS.

Candidates for admission to this School must present a degree in Arts, Literature, Philosophy, or Science from a recognized college or scientific school, with the exception of such persons, of suitable age and attainments, as may be admitted by a special vote of the Administrative Board in each case.* Students admitted by special vote of the Administrative Board shall be classed as special students, and therefore not candidates for the degree of M.D.; but if such special students obtain grade $\mathcal C$ in all their work during their first year of residence, they may be placed in regular standing as candidates for the degree, by vote of the Administrative Board.

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry, Qualitative Analysis, and elementary Organic Chemistry sufficient to fit them to pursue the courses in Chemistry given at the Medical School; or, failing in this, to pass examinations in these subjects. Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry; but they must make up the condition before the beginning of the second half-year. The required training in Chemistry is afforded by courses in Chemistry 1, 2, and 3, in Harvard College.

The admission examination in Chemistry (at which time also the notebooks in Qualitative Analysis must be handed in) is held at the Medical School, Longwood Avenue, Boston, at 10 a.m., on the Thursday following the last Wednesday in June, and on the last Wednesday in September. The examination is conducted in writing.

In addition to the required courses in Chemistry, the Faculty recommends that students intending to study medicine pursue courses in Zoölogy, Morphology of Animals, Comparative Anatomy of Vertebrates, and Microscopical Anatomy (Zoölogy 1, 2, 3, and 4); in Morphology of Plants (Botany 2); in Experimental Physics (Course C); and in Psychology (Philosophy E).

^{*} The exception above referred to applies only to men who, without such a degree, have acquired an equivalent education and training sufficient to enable them to profit by the instruction offered in the School.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations required in the full undergraduate course and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examinations), and June. The next year will begin September 30, 1908.

DIVISION OF STUDENTS.

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Thursday, the first day of the academic year.

Students are required to devote themselves exclusively to the work of the School.*

Students who began their professional studies in other recognized Medical Schools may be admitted to advanced standing. All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission; but applicants for advanced standing who have fulfilled in another recognized school the requirements of a department of this School may be excused from repeating such requirements, provided the instruction which they have received is considered satisfactory by the Committee on Admission in conference with the head of the department concerned.

Any student may obtain a certificate of his period of connection with the School.

^{*} The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

DIVISION OF STUDIES

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FOURTH YEAR ELECTIVES	Surgery Genito-Urinary Surgery Orthopedies Surgical Pathology Clinical Surgical Pathology Obstetries Gynaecology Dermatology and Syphilis Neurology and Psychiatry Oplithalmology Otology Laryngology
Fолити YE	Anatomy I and 2 Comp, Anatomy I and 2 Comp, Anatomy I and 2 Chical Carinous Physiology Surgical Path Biochemistry Bacteriology Clinical Surgical Pathology 1, 2, 3, 4, 5, 6 and 7 Neuropathology Dermatology Ophthalmology Comparative Pathology Neurology and Ilygiene Theory and Practice 1, 2, 3, 4, 5, 6, and 7 Clinical Medicine Pediatrics Laryngology
Типр Убав	*Materia Medica and Therapeutics 3 Clinical Medicine 3 Pediatrics 2 *Surgery (written 2 hrs., 3 Clinical Surgery (written 1 hr., practical 1 hr.) 5 Obstetries 5 Gynaecology 1 Dernatology 1 Syphilis Neurology 1 Faychiatry 1 Faychiatry 1 Gotology 1 Caryngology 1 Laryngology 1 Genito-Urbrary Surgery Legal Medicine Municipal Sanitation
SECOND YEAR	*Bucteriology 3 Hydriology 3 Hygiene 1 Muleria Medica and Therapeutics Theory and Practice Clinical Medicine Surgery
Pinst Year	*Anakony 8 *Histology and Binbyology 3 Physiology 3 Biochemistry 8

NOTE — Subjects in which an examination is required are in roman letters. The number following the name of the examination inducates the length in hours of the examination. In the fourth year, electrics are be chosen aggregating 1000 hours; each electric or half-course has a value of 125 hours. * Examination in February.

METHODS OF INSTRUCTION.

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE.—The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE TABULAR VIEWS.

B.C.H. = Boston City Hospital. B.D. = Boston Dispensary.

B.I.H. = Boston Insane Hospital (Pierce and Austin Farms).

B.L.H. = Boston Lying-in Hospital. Ch.H. = Children's Hospital.

E. and E.I. = Massachusetts Charitable Eye and Ear Infirmary.

 $\begin{aligned} \text{F.H. for W.} &= \text{Free Hospital for Women.} \\ \text{H.M.S.} &= \text{Harvard Medical School.} \end{aligned}$

I.H. = Infants' Hospital.
L.I.H. = Long Island Hospital.
McL.H. = McLean Hospital.

M.G.H. = Massachusetts General Hospital.

S.D.B.C.H. = South Department, Boston City Hospital.

S.H. = Samaritan Hospital.

S.O.P.D. = Surgical Out-Patient Department.

Anatomy.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

John Warren, M.D., Assistant Professor of Anatomy.

 ${\tt David\ Cheever,\ M.D.,\ } \textit{Demonstrator\ of\ } \textit{Anatomy}.$

ELISHA FLAGG, M.D., Assistant in Anatomy.

Harris P. Mosher, M.D., Assistant in Anatomy.

CHARLES S. BUTLER, M.D., Assistant in Anatomy.

Zabdiel B. Adams, M.D., Assistant in Anatomy.

James D. Barney, M.D., Assistant in Anatomy. John B. Hartwell, M.D., Assistant in Anatomy.

ROBERT M. GREEN, M.D., Assistant in Anatomy.

ARIAL W. GEORGE, M.D., Assistant in Anatomy.

EDWARD J. CURRAN, M.D., Assistant in Anatomy.

First Year. — The course in anatomy occupies the mornings in October, November, and December, and both mornings and afternoons in January. The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model.

The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

on are

Text-books. — Piersol. Cunningham. Gray. Quain. Morris. Gerrish. Woolsey, Applied Anatomy.

Collateral Reading. — Dwight, Frozen Sections of a Child Dwight, Clinical Atlas of Variations of Hands and Feet. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Testut, Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Tillaux, Anatomie topographique. Humphry, Human Skeleton.

FIRST YEAR.

October.

Lectures. Professor Dwight. Seven hours weekly. 28
Study of bones and joints. Three hours daily for first two weeks. 33
Demonstrations. Dr. Cheever. Four times a week to sections of the
class for last two weeks.
Practical anatomy with recitations. Three hours a day, five times a week
for last two weeks.
November and December.
Lectures. Professor Dwight. Three hours a week. 24
Demonstrations. Drs. Warren and Cheever. Four times a week to
sections of the class.
Practical anatomy with recitations. Three hours a day, five times a
week.
January.
Lectures and demonstrations. Dr. Warren. Daily. 24
Demonstrations. Dr. Cheever. Four times a week to sections of the
class. 24
Practical anatomy with recitations. Three hours a day, five times a
week.
Demonstrations and study of the brain and organs of sense. Three hours
a day, five times a week.

Comparative Anatomy.

Charles S. Minot, S.D., LL.D., D.Sc., James Stillman Professor of Comparative Anatomy.

FREDERIC T. LEWIS, M.D., Assistant Professor of Embryology. JOHN L. BREMER, M.D., Demonstrator of Histology.

LEGNARD W. WILLIAMS, Ph.D., Instructor in Comparative Anatomy. LUTHER D. SHEPARD, Jr., M.D., D.M.D., Instructor in Histology.

Richard E. Scammon, A.M., Austin Teaching Fellow in Histology and Embryology.

Franklin P. Johnson, A.B., Austin Teaching Fellow in Histology and Embryology.

LABORATORY.

The laboratory comprises the whole southeast wing of the new Morgan Anatomical Building. There are fifteen unit rooms for class work, each of which measures twenty-three by thirty feet, is well lighted, and will be thoroughly equipped as needed. Each unit room is designed for twenty-four elementary or twelve advanced students. There are separate rooms for the various officers, store rooms, collection room, animal room, etc. There is a large library in which complete files of the most important anatomical and morphological journals will be placed, together with many standard works of reference, and in an adjoining room a collection of about eight thousand pamphlets. A card catalogue and a classified bibliography are maintained which give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in comparative anatomy in the broadest sense, including histology and embryology. The former Department of Histology and Embryology has been merged with the new Department of Comparative Anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises nearly fifteen hundred series of sections of carefully selected typical vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection also includes fifty-one series of sections from human embryos, several of which are of exceptional value, among them being one of the very youngest stages of man yet known.

Text-books. — Stöhr's Histology, edited by F. T. Lewis. Minot, Laboratory Text-book of Embryology.

Collateral Reading.—Quain, Anatomy. Lee, Microtomist's Vademecum. Kölliker, Gewebelehre. Minot, Human Embryology. Van Gehuchten, Système nerveux.

REGULAR COURSES.

First Year. — Histology and Embryology are taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December. Every student is recommended to purchase a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term or four dollars for the whole first ear work. Each student is charged a laboratory fee of three dollars.

FIRST YEAR.

October, November, December.

Lectu	res. Profess	sor Minot,	Dr. B	REMER,	Dr.	LEWIS.	One	half-hour
fi	ve times a we	eek.						30
Labor	atory work.	Three an	d one-ho	ulf hour.	s five	times a	week.	210

Laboratory work. Three and one-half hours five times a week.

Quiz. Two hours once a week.

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GRADUATE COURSES.

11-

nt L. 1. Elementary Human Histology and Embryology. Five afternoons a week (from 2 until 6), first half-year.

This course is intended to teach the normal histology of the human body. It deals with the cells, tissues, and organs from the developmental standpoint. After a brief consideration of the cell, the fertilization and segmentation of the ovum are studied, as an introduction to the study of the chick embryo of 36 hours and the pig embryo of 21 days. In this work special stress is laid on the origin and growth of the different organs, and from this time the various human tissues and organs are taken up separately, each studied from the point of view of organogeny. With the work on the uterus, the human placenta and foctal membranes are given special emphasis. The last part of the course is devoted to the study of the development and histology of the brain and sense organs.

This course for the first three months is identical with that required of first-year medical students.

2. Anatomy of Higher Vertebrates. Five afternoons a week (from 2 until 6), second half-year.

The object of this course is to give the student an exact knowledge of the anatomy of a few mammals and birds as a foundation for research in Anatomy and Embryology, or for experimental work in Physiology or Pathology.

The structure of a small number of mammals, including a representative carnivore, rodent and ungulate, and one or two birds will be studied.

There will be lectures upon the general principles of comparative anatomy.

Each student will be required to make thorough dissections of each animal and to prepare sections of the most important organs.

College courses in the morphology of animals, especially of vertebrates, are desirable as a preliminary to this work. Students who have not previously studied the anatomy of lower vertebrates will also be required to dissect some of these forms.

3. Embryology of Vertebrates. Full course (second half-year).

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5, or its equivalent, offered by the Department of Zoölogy of Harvard College, is recommended.

In this course sixteen hours per week, at times chosen by the student, are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. Each student will be required to make a thorough detailed study of at least three typical stages of embryos of the higher vertebrates. The methods for making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction will be required.

The object of the course is, therefore, to give the student a knowledge of embryology by learning minutely the entire anatomy of three embryos of diverse stages of development, and to teach the methods of embryological research.

In place of a text-book the original publications will be used. At the discretion of the instructor students may have access to the very valuable and extensive Embryological Collection described above, and to the collection of models, many of which were made in this laboratory.

4. Advanced Histology. Five mornings a week (from 9 until 1), second half-year.

This course is intended to supplement the course in the Anatomy of Higher Vertebrates. The genesis as well as the adult histology of the various parts and organs is studied, and special stress is laid on their differences, developmental and structural, in the animals chiefly used in experimental medicine and animal economics. Students will also be required to master the principal technical methods used in Histology.

All of the courses offered in this department to regular medical students as fourth-year electives are open to graduate students who are candidates for the higher degrees.

INVESTIGATION.

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term: this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology.

Walter B. Cannon, M.D., George Higginson Professor of Physiology. Ernest G. Martin, Ph.D., Instructor in Physiology. Edward B. Meigs, M.D., Instructor in Physiology. Roy G. Hoskins, A.M., Teaching Fellow in Physiology.

EUGENE L. PORTER, A.M., Austin Teaching Fellow in Physiology.

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately two hundred hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised weekly.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis based upon reading of the records of original investigations is required of each student. The Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open

to students for reference and reading. There is insufficient time for presenting before the class all the theses written each year. Certain theses of special importance in relation to the regular instruction, between forty-five and fifty in number, are chosen to be presented. In each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Theories of muscular contractility, Color-blindness, Heart-block, Haemolysis, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, daily and weekly written tests are given. The daily tests, fifteen minutes in duration and consisting of two questions, serve to emphasize important points in any part of the work recently considered. Following are some of the questions: Does blood enter or leave the ventricle in the interval between the first and second heart sounds? Between the second and first sounds? What is referred pain? What are the relative limits of the various kinds of color-blindness in the normal eye?

The weekly tests, one hour in length, require a more general review of previous work than the daily tests. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization.

If in the written tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first four weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Text-books.—No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Nagel, Handbuch der Physiologie.

FIRST YEAR (Second half).

Laboratory experie	nents. Prof	essor Can	non, Drs.	MARTIN	and	MEIGS,
and Messrs. H	Hoskins and	PORTER.	Daily.			200

Written tests (76). Fifteen minutes daily, except Monday and Saturday.

Written tests (15). One hour Mondays.

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Lectures (90). Professor Cannon, and Drs. Martin and Meigs. 90

Special demonstrations (32). Professor Cannon, and Drs. Martin and Meigs.

Discussion of Theses (50).

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Thesis. Written by each student from the original sources.

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference

INVESTIGATION.

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology.

WILLIAM T. PORTER, M.D., LL.D., Professor of Comparative Physiology.

GRADUATE COURSES.

- I. Physiological Research. Students qualified for research will pursue their investigations under the immediate direction of Professor W. T. PORTER.
- II. Comparative Physiology of Muscle. Professor Porter. Three hours weekly during February and March.
- III. Physiological Conference. Professor Porter. Demonstrations with informal discussions of selected problems in physiology. Mondays, 5 to 6 P.M., throughout the year.

Biological Chemistry.

Otto Folin, Ph.D., Associate Professor of Biological Chemistry.

Lawrence J. Henderson, M.D., Instructor in Biological Chemistry.

Otis F. Black, A.M., Assistant in Biological Chemistry.

Walter R. Bloor, A.M., Assistant in Biological Chemistry.

FIRST YEAR

Biochemistry 1.—The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, and of the general principles and more important facts of Chemical Physiology and Pathology.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Chemistry 15, offered by the Division of Chemistry of the Faculty of Arts and Sciences, in some respects a parallel course, or its equivalent, together with a somewhat extended acquaintance with organic chemistry, may be accepted in place of a part of the work of this course, provided that the time be spent in more advanced work in Biological Chemistry.

FIRST YEAR.

Biochemistry I.—General Biological Chemistry. Lectures, Monday, Tuesday, Wednesday, Thursday, Friday, at 2; and laboratory, Monday, Tuesday, Wednesday, Thursday, Friday, 3-5.30, during the second half-year. Professor Folin and Dr. Henderson, and Messrs. Black and Blook.

GRADUATE COURSES.

Biochemistry 2.—Metabolism. Lectures, five times a week during November and December. Professor Folin.

This course is designed to acquaint the student with the present knowledge and problems of the metabolism of man and lower animals, both normal and pathological.

Biochemistry 3.— The Technique of Metabolism Investigations. Laboratory practice. Professor Folin and assistants.

This course is designed to give the student a practical knowledge of the quantitative methods useful in conducting metabolism researches.

Biochemistry 4.— The Applications of Physical Chemistry to Biology. Lectures, five times a week during January. Dr. Henderson.

This course is designed to acquaint the student with the recent applications of physico-chemical theories and methods to Biology and medical science. The subjects to be discussed will include the theory of solution, the concentration law, catalysis, ionization, the theory of colloids, and the physico-chemical organization of the cell. The lectures will be supplemented by extended reading, and opportunity for practice in physicochemical methods will be offered. In preparation for this course an elementary acquaintance with Physical Chemistry, such as may be obtained from Chemistry 8, offered by the Division of Chemistry of the Faculty of Arts and Sciences, is desirable.

Biochemistry 20.—Research in Biological Chemistry. Half-courses, forenoons, throughout the year; all day or afternoons, first half-year.

Bacteriology.

HAROLD C. ERNST, M.D., Professor of Bacteriology.

LANGDON FROTHINGHAM, M.D.V., Instructor in Bacteriology.

CALVIN G. PAGE, M.D., Assistant in Bacteriology.

HENRY J. PERRY, M.D., Assistant in Bacteriology.

ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.

EUGENE E. EVERETT, M.D., Assistant in Bacteriology.

EDWARD N. TOBEY, M.D., Assistant in Bacteriology.

CLEAVELAND FLOYD, M.D., Austin Teaching Fellow in Bacteriology.

Second Year.—Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Text-books. - Muir and Ritchie, Abbott, Park.

Collateral Reading. — Sternberg. Heim. Migula. Kolle and Wassermann

SECOND YEAR.

Lectures. Professor Ernst. Daily, except Saturdays, during October and November. 40

Laboratory work. Professor Ernst, and Drs. Frothingham, Page,
Perry, Worthington, and Everett. Two to three hours daily
during October and November.

Pathology.

WILLIAM T. COUNCILMAN, M.D., I.I.D., Shattuck Professor of Pathological Anatomy.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

James H. Wright, M.D., S.D., Assistant Professor of Pathology.

Elmer E. Southard, M.D., Assistant Professor of Neuropathology.

Frederick H. Verhoeff, M.D., Instructor in Ophthalmic Pathology.

FREDERICK P. GAY, M.D., Assistant in Pathology.

Ernest E. Tyzzer, M.D., Assistant in Pathology.

LAWRENCE J. RHEA, M.D., Assistant in Pathology.

Ernest T. F. Richards, M.D., C.M., Assistant in Pathology and in Neuropathology.

ALEXANDER R. ROBERTSON, M.D., C.M., Assistant in Pathology. John H. Wilson, Ph.D., Research Assistant in Pathology.

Second Year. — The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. Lectures and laboratory talks are given daily.

In the forenoons of the second and third weeks of December, Professor T. Smith gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are: -

(a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)

(b) Twenty laboratory exercises in surgical pathology. (See Surgery.) Text-books. — Ziegler, General and Special Pathology. Stengel, A Text-book of Pathology. Mallory and Wright, Pathological Technique. Collateral Reading. — Thoma, Pathologische Anatomic. Orth, Patho-

Collateral Reading. — Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie animale. Braun, The Animal Parasites of Man.

SECOND YEAR.

Lectures. Professors Councilman and Mallory. Daily for fourteen weeks, October, November, December (first week only), and January.

Lectures. Professor T. Smith. One hour daily, second and third weeks of December. 12

Laboratory work. Professor Councilman, and Drs. Gay, Rhea, and Robertson. Three hours daily during the forenoons of October, November, December (first week only), and January. 252

Demonstrations and laboratory work. Professor T. Smith. Two hours daily, second and third weeks of December. 24

Neuropathology. Asst. Professor Southard. Afternoons in December, 45 Surgical pathology. Asst. Professor Nichols. Afternoons in January, 60

Comparative Pathology.

Theobald Smith, M.D., LL.D., George Fabyan Professor of Comparative Pathology.

Ernest L. Walker, S.D., Assistant in Medical Zoölogy.

Marshal Fabyan, M.D., Assistant in Comparative Pathology.

Warren MacPherson, A.M., Austin Teaching Fellow in Comparative Pathology.

Second Year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth Year. —The laboratory is open throughout the year to advanced and graduate students prepared to carry on original work in problems relating to the spontaneous and induced diseases of animal life, their causes and the relation of these causes to human diseases. Special facilities for the study of bacterial toxines, antitoxins and vaccines, and animal parasites are offered to the qualified student.

SECOND YEAR.

Lectures. Professor T. Smith. (H.M.S.) One hour daily, second and third weeks of December.

Demonstrations and laboratory work. Professor T. Smith, and Drs. Rhea, Robertson, and Fabyan. Two hours daily, second and third weeks of December.

Hygiene.

———, M.D., Professor of Hygiene.

GEORGE B. MAGRATH, M.D., Assistant in Hygiene.

Second Year. — The instruction consists of lectures and demonstrations. Text-book. — Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Abbott, Hygiene of Transmissible Diseases.

SECOND YEAR.

Lectures and demonstrations. ————. Three times a week, second half-year.

Materia Medica and Therapeutics.

Franz Pfaff, M.D., Professor of Pharmacology and Therapeutics.

Maurice V. Tyrode, M.D., Instructor in Pharmacology.

David L. Williams, M.D., Assistant in Materia Medica.

Second and Third Years.—Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional course in practical pharmacy, in which the compounding of prescriptions is illustrated. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice, and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological actions of drugs, and their practical value as remedies.

Text-book. — A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR.

Pharmacology lectures. Professor Pfaff. Twice a week, February to May inclusive. 32

Materia Medica lectures. Dr. Tyrode. Once a week, February to May inclusive. 16

Voluntary laboratory work. Dr. Tyrode. Two hours once a week during April and May.

THIRD YEAR.

Lectures on Therapeutics. Professor Pfaff. Once a week, first halfyear. 16

The Theory and Practice of Physic.

Henry A. Christian, M.D., Hersey Professor of the Theory and Practice of Physic.

ELLIOTT P. Joslin, M.D., Instructor in the Theory and Practice of Physic.

HENRY F. HEWES, M.D., Instructor in the Theory and Practice of Physic.

ARTHUR K. STONE, M.D., Assistant in the Theory and Practice of Physic.

George S. C. Badger, M.D., Assistant in the Theory and Practice of Physic.

Joseph H. Pratt, M.D., Assistant in the Theory and Practice of Physic. Herman M. Adler, M.D., Assistant in the Theory and Practice of Physic.

CHARLES L. OVERLANDER, M.D., Assistant in the Theory and Practice of Physic.

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THOMAS F. LEEN, M.D., Assistant in the Theory and Practice of Physic. Francis W. Palfrey, M.D., Alumni Assistant in the Theory and Practice of Physic.

WILLIAM B. ROBBINS, M.D., Assistant in the Theory and Practice of Physic.

Channing Frothingham, Jr., M.D., Assistant in the Theory and Practice of Physic.

ROGER I. LEE, M.D., Assistant in the Theory and Practice of Physic.

The instruction given by the Department of the Theory and Practice of Physic consists of both clinical and laboratory work. The clinical work is given by means of lectures, clinical lectures and clinical exercises at the Massachusetts General Hospital, the Boston City Hospital, the Carney Hospital, or the House of the Good Samaritan. The laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research. Both kinds of work are offered to both undergraduate and graduate students.

Second and Third Years. — Lectures. Lectures on selected topics are given at the Medical School.

Clinical Lectures.—Clinical lectures in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Clinical Exercises. — Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory. — Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—Courses are offered in both clinical and laboratory work, and are described on pages 58 and 59 of this catalogue.

Graduate Students.—Graduate students are admitted to Courses 3, 4, 5, 6, and 7 as described on pages 58 and 59 of this catalogue, and to Courses 1 and 2 provided that any places in these courses remain unfilled by regular fourth-year students.

Text-books. — Osler, Practice of Medicine. Von Leube, Diagnose der Inneren Krankheiten. Emerson, Clinical Diagnosis. Sahli, Diagnostic Methods.

Collateral Reading. — Nothnagel, Specielle Pathologie und Therapie. Allbutt, System of Medicine. Kolle und Weintraud, Die Deutsche Klinik. Osler, Modern Medicine. Krehl, Principles of Clinical Pathology. Schwalbe, Therapeutische Technik. Gould, Medical Dictionary.

SECOND YEAR.

- Lectures on selected topics. Professor Christian. (H.M.S.) Twice a week, second half-year.
- Clinical lectures. Dr. Badger. (M.G.H.) Once a week, second halfyear.
- Exercises in sections. Drs. Joslin (B.C.H.), Badger and Palfrey (M.G.H.), Stone and Lee (M.G.H. and S.H.). Twice a week, second half-year, for each student.
- Laboratory exercises. Dr. Hewes, assisted by Drs. Adler, Overlander, and Robbins. Five times a week, second half-year. 80

THIRD YEAR.

- Lectures on selected topics. Professor Christian. (II.M.S.) Twice a week, first half-year.
- Clinical lectures. Dr. Pratt. (M.G.H.) Once a week, first half-year; once a week, second half-year.
- Clinical lectures. Dr. Hewes. (M.G.H.) Once a week, first halfyear.
- Clinical lectures. Drs. Stone, Lord, or Lee. (M.G.H.) Once a week, first half-year.
- week, first half-year.

 Exercises in sections. Drs. Stone and Lee. (M.G.H. and S.H.)

 First half-year.

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Clinical Medicine.

FREDERICK C. SHATTUCK, M.D., LL.D., Jackson Professor of Clinical Medicine.

George G. Sears, M.D., Assistant Professor of Clinical Medicine.

RICHARD C. CABOT, M.D., Assistant Professor of Clinical Medicine.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

HENRY JACKSON, M.D., Instructor in Clinical Medicine.

JOHN W. BARTOL, M.D., Assistant in Clinical Medicine.

James M. Jackson, M.D., Assistant in Clinical Medicine.

FRANKLIN W. WHITE, M.D., Assistant in Clinical Medicine.

WILLIAM H. ROBEY, Jr., M.D., Assistant in Clinical Medicine.

WILLIAM H. SMITH, M.D., Assistant in Clinical Medicine.

EDWIN A. LOCKE, M.D., Assistant in Clinical Medicine.

FREDERICK T. LORD, M.D., Assistant in Clinical Medicine.

RICHARD DEXTER, M.D., Assistant in Clinical Medicine.

GEORGE C. SHATTUCK, M.D., Alumni Assistant in Clinical Medicine.

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second Year.—The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week.

Clinical instruction for the entire class, twice a week, in diagnostic methods, diagnosis, and treatment.

Third Year. — Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections, in the ward and out-patient departments, in connection with the Department of Theory and Practice. Each student attends forty-eight exercises during the year.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Simon, Clinical Diagnosis. Cabot, Physical Diagnosis. Forchheimer, Prophylaxis and Treatment of Internal Disease.

Collateral Reading. — Allbutt, System of Medicine. Osler's Modern Medicine. Nothnagel, Specielle Pathologie und Therapie Fagge and Pye-Smith. Practice of Medicine. Gowers, Diseases of the Nervous System. Hare, Practical Diagnosis. Butler, Diagnostics of Internal Medicine. Le Fevre, Physical Diagnosis. Sahli, Diagnostic Methods.

SECOND YEAR.

- Clinics. Professor Shattuck (M.G.H.) and Dr. H. Jackson (B.C.H.).

 Twice a week, second half-year.
- Physical Diagnosis. Drs. J. M. Jackson and Lord (M.G.II.) and Dr Rober (B.C.H.). Two exercises a week, second half-year, for each student.

THIRD YEAR.

- Clinics. Professor Shattuck. (M.G.H.) Twice a week, first half-year; once a week, second half-year. 48
 - Assistant Professor Sears. (B.C.H.) Twice a week, first half-year; once a week, second half-year.
 - Dr. H. Jackson. (B.C.H.) Once a week, second half-year. 16
 - Dr. Bartol. (B.C.H.) Once a week, second half-year.

Pediatrics.

- THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.
- JOHN H. McCollom, M.D., Professor of Contagious Diseases.
- JOHN L. MORSE, M.D., Assistant Professor of Pediatrics.
- MAYNARD LADD, M.D., Instructor in Pediatrics.
- CHARLES H. DUNN, M.D., Clinical Instructor in Pediatrics.
- HENRY I. BOWDITCH, M.D., Assistant in Pediatrics.
- WILLIAM P. LUCAS, M.D., Assistant in Pediatrics.
- PHILIP H. SYLVESTER, M.D., Assistant in Pediatrics.

Third Year. — Lectures on such selected topics as the exanthemata feeding and gastro-enteric diseases preparatory for the clinical teaching are given early in the year. Clinical lectures are given from November to March inclusive at the Children's Hospital and at North Grove Street: the students are required to take an active part in the examination and discussion of the cases. A certain number of recitations on subjects selected as best taught in this way, such as Development, are held in the course of the year, and a large amount of case teaching is given in the latter part of the year. Sectional teaching at the bedside is given from October to May inclusive, and comprises a large proportion of the year's instruction. During the first half-year the class in sections receives instruction three times a week in the contagious wards of the Boston City Hospital, where each student is shown and examines cases of diphtheria, scarlet fever, and measles. Each student is taught the technique of intubation, and has an opportunity to see intubation performed. In all the clinical and sectional teaching especial attention is paid to clinical therapeutics.

Text-book. - Rotch, Pediatries

Collateral Reading.—Pfaundler and Schlossmann, The Diseases of Children. Northrup, American Edition of The Diseases of Children, by Ashby and Wright. Jacobi, Therapeutics of Infancy and Childhood. Holt, Diseases of Infancy and Childhood. Sachs, The Nervous Diseases of Children.

THIRD YEAR.
Lectures. Professor Rotch. (H.M.S.) Once a week, October 1 to December 24; twice a week, February 1 to February 23; once a week, March 1 to March 15.
Assistant Professor Morse. (H.M.S.) Once a week, January 7 to
January 28, and on March 29 and on March 30.
Clinical lectures. Professor Rotch. (Ch.H.) Once a week, October 2
to February 12.
Assistant Professor Morse. (North Grove St.) Once a week, Feb-
ruary 19 to March 26.
Recitations. Assistant Professor Morse. Twice a week, April 5 to
April 20.
Dr. Ladd. Once a week, March 2 to March 23.
Case Teaching. Assistant Professor Morse. Twice a week, May 17 to
May 30.
Dr. Dunn. Twice a week, May 3 to May 11.
Section Teaching. Professor McCollom. (S.D.B.C.H.) Three times a
week, first half-year.
Drs. Ladd, Dunn, Bowditch, Lucas, and Sylvester. Throughout
the year.
Each student receives 29 hours of section teaching.

Surgery.

The Division of Surgery is composed of the departments of surgery, clinical surgery, orthopedic surgery, and surgical pathology.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.

Maurice H. Richardson, M.D., Moseley Professor of Surgery.

HERBERT L. BURRELL, M.D., John Homans Professor of Surgery.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

James G. Mumford, M.D., Instructor in Surgery.

John B. Blake, M.D., Instructor in Surgery.

Howard A. Lothrop, M.D., Instructor in Surgery.

Charles A. Porter, M.D., Instructor in Surgery.

ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

ROBERT W. LOVETT, M.D., Instructor in Orthopedics.

Elliott G. Brackett, M.D., Instructor in Orthopedics.

Paul Thorndike, M.D., Instructor in Genito-Urinary Surgery. Samuel J. Mixter, M.D., Lecturer on Surgery. George H. Monks, M.D., M.R.C.S., Lecturer on Surgery. Francis S. Watson, M.D., Lecturer on Genito-Urinary Surgery. Francis B. Harrington, M.D., Lecturer on Surgery. Charles L. Scudder, M.D., Lecturer on Surgery. FRED B. LUND, M.D., Lecturer on Surgery. Augustus Thorndike, M.D., Assistant in Orthopedics. WILLIAM E. FAULKNER, M.D., Assistant in Surgery. George W. W. Brewster, M.D., Assistant in Surgery. James S. Stone, M.D., Assistant in Surgery. Ernest A. Codman, M.D., Assistant in Surgery. Joshua C. Hubbard, M.D., Assistant in Surgery. Daniel F. Jones, M.D., Assistant in Surgery. LE ROI G. CRANDON, M.D., Assistant in Surgery. Walter C. Howe, M.D., Assistant in Surgery. CHANNING C. SIMMONS, M.D., Assistant in Surgery. DAVID D. SCANNELL, M.D., Assistant in Surgery. EDWARD H. RISLEY, M.D., Alumni Assistant in Surgery.

Frank L. Richardson, M.D., Austin Teaching Fellow in Surgery.

Instruction is given by systematic lectures, surgical anatomy lecture demonstrations, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third Years.—A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technique; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the

end of the first half of the third year. During the whole course surgical anatomy lectures will be given on special subjects in surgery. As early as may be in the second half of the second year, the course in surgical technique is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technique the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. In the month of February all the students will be assigned to serve one month during the year beginning April 1, 1909, at one or other of these hospitals. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals, and also receives instruction in anesthesia. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in orthopedic surgery is given in the first half of the year and consists of lectures at the Medical School and of clinical exercises at the Children's Hospital.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Books recommended.—International Text-book of Surgery. Warren, Surgical Pathology. American Text-book of Surgery. Cheever, Lectures on Surgery. Park's Modern Surgery. Dennis, System of Surgery. Von Bergmann and W. T. Bull, System of Surgery. König, Lehrbuch der Speciellen Chirurgie. Bryant, Operative Surgery. Jacobson (and Steward), Operations of Surgery. DaCosta, Modern Surgery. Eisendrath, Surgical Diagnosis. Scudder, Treatment of Fractures. Stimson, Fractures and Dislocations. Binnie, Operative Surgery. Wharton, Minor Surgery and Bandaging. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopedic Surgery. Reyes, Surgical Diseases of the Genito-Urinary Organs. Morton, Genito-Urinary Diseases and Syphilis. Mumford, Clinical Talks on Minor Surgery. Gould, The Technique of Operations on the Intestines and Stomach. Burrell and Blake, Case Teaching in Surgery.

SECOND YEAR.

- Laboratory course in Surgical Pathology. Assistant Professor Nichols.

 (H.M.S.) Twenty three-hour exercises during January. (See Pathology.)
- Clinical lectures in connection with the above course. Assistant Professor Nichols. (B.C.H.) Twelve exercises during January. 12
- Laboratory course in Surgical Technique. Dr. Lothrop. Six lectures to the entire class.
 - Twelve two-hour exercises for each student during second half of second year. 24
- Systematic lectures, surgical anatomy lecture demonstrations, demonstrations, and recitations. Professors Richardson and Burrell, and Drs. Lothrop and Greenough. (H.M.S.) Four times a week. 128
- Clinical demonstrations in connection with the above lectures. Professor RICHARDSON (M.G.H.), Professor BURRELL, and Drs. J. B. BLAKE and LOTHROP (B.C.H.). Four times a week.

THIRD YEAR.

- Systematic lectures, surgical anatomy lecture demonstrations, demonstrations, and recitations. Professors Richardson and Burrell.

 (H.M.S.) Three times a week, first half-year.

 48
- Clinical demonstrations in connection with above lectures. Professors
 RICHARDSON (M.G.H.) and BURRELL (B.C.H.). Twice a week, first
 half-year.

 32
- Clinical lectures. Dr. C. A. Porter. (M.G.H.) Once a week, second half-year.
 - Professor Burrell and Dr. Monks. (B.C.H.) Twice a week, second half-year.
- Clinical exercises in surgical wards. Professor Richardson, and Drs.

 Harrington, Lothrop, Codman, Lund, and Crandon. Twice a

 week for eight weeks, first half-year.

 16
- Lectures and demonstrations. Orthopedic surgery. Professor Bradford.

 (H.M.S. and Ch. H.) Once a week, first half-year. 16
- Lectures. Genito-Urinary Surgery. Dr. Thorndike. (H.M.S.) Once a week for eight exercises in October and November. 8
- Section teaching at the Hospitals. One hour a day for six days.

6

Case Teaching. Dr. J. B. Blake. (H.M.S.) Once a week, beginning March \mathcal{I} .

Obstetrics and Gynaecology.

- CHARLES M. GREEN, M.D., Professor of Obstetrics.
- Franklin S. Newell, M.D., Assistant Professor of Obstetrics and Gynaecology.
- Ernest B. Young, M.D., Instructor in Gynaecology.

HOWARD T. SWAIN, M.D., Instructor in Obstetrics.

MALCOLM STORER, M.D., Assistant in Gynaecology.

WILLIAM P. GRAVES, M.D., Assistant in Gynaecology.

LEO V. FRIEDMAN, M.D., Assistant in Obstetrics and Gynaecology.

James R. Torbert, M.D., Assistant in Obstetrics.

Nathaniel R. Mason, M.D., Assistant in Obstetrics and Gynaecology. Robert L. Denormandie, M.D., Assistant in Obstetrics.

OBSTETRICS.

Third Year.—Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, to receive clinical instruction on at least one of them, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Text-book. - J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Peterson, The Practice of Obstetrics. Reynolds and Newell, Practical Midwifery. Lusk, The Science and Art of Midwifery. Jellett, Manual of Midwifery.

THIRD YEAR.

Lectures on the Theory and Practice of Obstetrics. Professor Green.

(H.M.S.) Twice a week.

Recitations. Assistant Professor Newell. (H.M.S.) Once a week. 32 Conferences. Professor Green, Assistant Professor Newell, and Drs. Swain, Friedman, Torbert, Mason, and Denormandie. (H.M.S.) Once a week. 32

Practical instruction in Clinical Obstetrics. Drs. Swain, Friedman, Torbert, Mason, and Denormandie. Throughout the year, i.e., every student must receive instruction on one of the cases of labor which he attends, and may ask for instruction on his other cases, if he desires.

GYNAECOLOGY.

Third Year. — Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Text-book. — Dudley, Principles and Practice of Gynaecology.

Collateral Reading. — Hirst, Text Book of Diseases of Women, Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women. Ashton, Practice of Gynaecology.

THIRD YEAR.

Lectures or recitations. Professor Green, Assistant Professor Newell, and Dr. Young. (H.M.S). Twice a week, second half-year. 32 Clinical exercises. Dr. Storer (B.D.), Dr. Graves (F.H. for W.), and Drs. Young and Mason (B.C.H.). In sections, during the second

half-year. Each student may attend six clinics of two hours each. 12

Dermatology and Syphilis.

John T. Bowen, M.D., Edward Wigglesworth Professor of Dermatology.

Abner Post, M.D., Assistant Professor of Syphilis.

Charles J. White, M.D., Instructor in Dermatology.

Harvey P. Towle, M.D., Assistant in Dermatology.

C. Morton Smith, M.D., Assistant in Syphilis.

Frederick S. Burns, M.D., Assistant in Dermatology.

DERMATOLOGY.

Third Year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Collateral Reading.—Stelwagon. Duhring. Hyde. Robinson. Crocker. Kaposi. v. Ziemssen. Besnier. Van Harlingen. Jackson. Taylor.

THIRD YEAR.

Lectures, demonstrations, and recitations on diseases of the skin. Professor Bowen. (H.M.S.) Once a week during October and November. 8 Clinical Dermatology. Professor Bowen. (M.G.H.) Once a week. 32 Clinical exercises. Drs. Towle and Burns. (M.G.H.) In sections, twice a week, February, March, April, and May.

SYPHILIS.

 $\it Third\ \it Year. --$ Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR.

Lectures. Assistant Professor Post. (H.M.S.) Once a week, December and January.

Clinical lectures. Assistant Professor Post and Dr. Smith. (B.D.)

Once a week, April and May.

8

Clinical exercises. Assistant Professor Post and Dr. Smith. (B.D.)

In sections, twice a week, second half-year. Each student attends
six two-hour exercises.

Neurology and Psychiatry.

James J. Putnam, M.D., Professor of Diseases of the Nervous System.

Philip Coombs Knapp, M.D., Clinical Instructor in Diseases of the Nervous System.

Edward W. Taylor, M.D., Instructor in Neurology.

Edward Cowles, M.D., Ll.D., Instructor in Mental Diseases.

George T. Tuttle, M.D., Clinical Instructor in Mental Diseases.

William Noyes, M.D., Clinical Instructor in Mental Diseases.

George A. Waterman, M.D., Assistant in Neurology.

NEUROLOGY.

Second Year. —Instruction is given during December on the pathology of the nervous system. The course is illustrated by lantern projections of histological preparations and by work in the laboratory.

Third Year.—During the first half-year one exercise a week, and during the second half-year two exercises a week, are given at the Massachusetts General Hospital. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system supplementary to the work in general internal medicine. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards. (d) Work in the Case-system. Short examinations and conferences will be held at intervals during the year.

Text-book.—Putnam and Waterman, Studies in Neurological Diagnosis. Collateral Reading.—Oppenheim, Diseases of the Nervous System (latest German edition). Gowers, Diseases of the Nervous System. Dana. Text-book of Nervous Diseases (latest edition). Herter, Diagnosis of Nervous Diseases (latest revised edition). Starr, Functional and Organic Diseases of the Nervous System. Purves Stewart, Diagnosis of Nervous Diseases. Janet, The Major Symptoms of Hysteria. Sherrington. The Integrative Action of the Nervous System. Bianchi, A Text-book of Psychiatry for Physicians and Students.

SECOND YEAR.

Pathology of the Nervous System. Assistant Professor Southard. (II.M.S.) Fifteen exercises during December. (See Pathology.) 45

THIRD YEAR.

Lectures, Demonstrations, and Clinical exercises. Professor Putnam, and Drs. Taylor and Waterman. (M.G.H.) Once a week, first half-year; twice a week, second half-year.

PSYCHIATRY.

Third Year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Boston Insane Hospital.

Text-books. — Kraepelin, Psychiatrie (English translation, Defendorf — Clinical Psychiatry). Clouston, Clinical Lectures on Mental Diseases. Folsom, Monograph in Pepper's System of Medicine. Berkley, Mental Diseases. Regis, Manual of Mental Medicine. Paton, Psychiatry.

Collateral Reading.—Krafft-Ebing, Text-book of Insanity. Church and Peterson, Nervous and Mental Diseases. Brower and Bannister, Insanity. James, Psychology. Tuke, Dictionary of Psychological Medicine. Baldwin, Dictionary of Philosophy and Psychology. Hall, Adolescence. Barr, Mental Defectives.

THIRD YEAR.

Lectures. Dr. Cowles. (H.M.S.) Once a week, second half-year. 16 Clinical exercises. Dr. Cowles. (B.I.H.) At stated intervals. 3-4

Ophthalmology.

Myles Standish, M.D., Assistant Professor of Ophthalmology. Edwin E. Jack, M.D., Instructor in Ophthalmology. Alexander Quackenboss, M.D., Instructor in Ophthalmology. Henry H. Haskell, M.D., Assistant in Ophthalmology. Edmund W. Clap, M.D., Assistant in Ophthalmology. Fred M. Spalding, M.D., Assistant in Ophthalmology.

Third Year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. — DeSchweinitz. Fuchs. Hansell and Sweet.

Collateral Reading.—Loring, On the Ophthalmoscope—Landolt, Refraction and Accommodation.—Norris and Oliver, System of Diseases of the Eye.—Haab, Atlas of the External Diseases of the Eye.

THIRD YEAR.

Lectures. Assistant Professor Standish. (II.M.S.) Twice a week, in October and November.

Clinical exercises. Drs. Jack, Quackenboss, Haskell, Clap, and Spalding. (E. and E.I.) In sections, ten hours a week, first half-year. Every student receives fourteen hours of instruction. 14

Otology.

CLARENCE J. BLAKE, M.D., Walter Augustus Lecompte Professor of Otology.

EUGENE A. CROCKETT, M.D., Instructor in Otology.

PHILIP HAMMOND, M.D., Instructor in Otology.

WILLIAM F. KNOWLES, M.D., Assistant in Otology.

Alfred M. Amadon, M.D., Assistant in Otology.

HARRIS P. MOSHER, M.D., Assistant in Otology.

DAVID H. WALKER, M.D., Assistant in Otology.

Third Year.—Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Text-books. - Brühl and Politzer. Bacon.

Collateral Reading. — Politzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Blake and Reik.

THIRD YEAR.

Lectures. Professor Blake. (H.M.S.) Twice a week, February and March; once a week, April and May. 24

Clinical exercises. (E. and E.I.) In sections, two hours, five times a week, second half-year. Every student attends ten exercises. 20

Laryngology and Rhinology.

Algernon Coolidge, Jr., M.D., Assistant Professor of Laryngology.

Frederic C. Cobb, M.D., Instructor in Laryngology.

J. Payson Clark, M.D., Instructor in Laryngology.

JOSEPH L. GOODALE, M.D., Instructor in Laryngology.

Rockwell A. Coffin, M.D., Instructor in Laryngology.

HARRIS P. MOSHER, M.D., Instructor in Laryngology.

HARRY A. BARNES, M.D., Assistant in Laryngology.

George H. Wright, D.M.D., Assistant in Laryngology.

Third Year.—Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has twenty-four lectures during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

THIRD YEAR.

Lectures. Assistant Professor Coolidge. (H.M.S.) Once a week, February and March; twice a week, April and May. 24
Clinical exercises. Assistant Professor Coolidge, and Drs. Clark, Goodale, Mosher (M.G.H.), Coffin (B.C.H.) and Cobb (B.D.).
In sections, second half-year. Twelve exercises for each student. 12

Legal Medicine.

Legal Medicine is no longer taught as a separate required study; but the several departments will give instruction in the medico-legal aspects of their respective subjects. Dr. G. B. Magrath, Instructor in Legal Medicine, will offer this year a voluntary or elective course in the subject, concerning which definite information will be posted later on the bulletin boards.

Municipal Sanitation.

Samuel H. Durgin, M.D., Lecturer on Hygiene.

THIRD YEAR. OPTIONAL COURSE.

Lectures. Dr. Durgin. (II.M.S.) Twice a week, February and March.

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year. The two half-courses elected for the first two or the last two months of each half-year must be formed on the same plan to avoid conflict.

Neuropathology, medicine, pediatrics, surgery, and obstetrics offer electives on the all-day plan.

Anatomy, comparative anatomy, comparative pathology, genito-urinary surgery, orthopedics, surgical pathology, clinical surgical pathology, gynaecology, dermatology, neurology and psychiatry, ophthalmology, otology, and laryngology offer electives on the half-day plan.

Physiology, comparative physiology, biochemistry, bacteriology, pathology, hygiene, and theory and practice offer electives on both plans.

The several half-courses offered by any one department are not necessarily graded courses, but represent hours of clinical, technical, and research work.

Students who intend to become general practitioners are advised to elect the following group of subjects:—

Medicine (theory and practice, clinical medicine).	3	half-c	ourses.
Pediatrics	1	6.6	66
Surgery	1	6.6	6.6
Obstetrics	1	6.6	6.6
Neurology and psychiatry, dermatology and syphilis,			
or gynaecology	1	6.6	66
Anatomy, comparative anatomy, physiology, bio-			
chemistry, bacteriology, neuropathology, hygiene,			
or orthopedics	1	66	66

Students interested in surgery are advised to elect the following group of subjects:—

Medicine (theory and practice, clinical medicine).	2	half-courses.
Surgery	2	66 66
Genito-urinary surgery	1	66 66
Anatomy	1	66 66
Gynaecology or clinical surgical pathology	1	46' 64
Orthopedics or surgical pathology	1	66 66

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned. Special arrangements will be made for students desirous of paying exclusive attention to other subjects than those listed, for example, pharmacology and comparative pathology.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Board of Administration, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

The final choice of electives must be left at the Dean's office on or before September 15.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

Anatomy.—Half-courses, afternoons, throughout the year.

Anatomy 1 October-November; December-January; February-March.

Anatomy 2 April-May.

Comparative Anatomy.—Half-courses, forenoons or afternoons, throughout the year.

Comparative Anatomy 1. Comparative Anatomy, Embryology, Histology, and Cytology. Forenoons or afternoons, throughout the year.

Comparative Anatomy 2. Development and structure of the ear, eye, and nasopharynx. Afternoons, October and November.

Physiology. — Half-courses, forenoons, afternoons, or all day, throughout the year.

Physiology 1. Half-course, afternoons, October and November.

Physiology 2. Half-course, afternoons, December and January.

Physiology 3. Half-courses, forenoons, afternoons, or all day, throughout the year.

Physiology 4. Half-courses, forenoons, afternoons, or all day, throughout the year.

Comparative Physiology. — Half-courses, forenoons, afternoons, or all day, throughout the year.

Biological Chemistry (Biochemistry 20). — Half-courses, forenoons throughout the year; all day or afternoons, first half-year.

Bacteriology.— Half-courses, forenoons, afternoons, or all day, second half-year.

Pathology. — Half-courses, forenoons, afternoons, or all day, throughout the year.

Pathology 1. Half-courses, forenoons, or all day, second halfyear.

Pathology 2 (Neuropathology). Half-courses, all day, throughout the year.

Pathology 3 Half-courses, afternoons, second half-year.

Pathology 4. Half-courses, afternoons, second half-year.

Pathology 5. Half-courses, all day, or afternoons, throughout the year.

Pathology 6. Half-courses, all day, or afternoons, throughout the year.

Pathology 7. Half-course, afternoons, February and March.

 ${\it Comparative\ Pathology.} -- {\it Half-courses}, \ {\it afternoons}, \ {\it first\ half-year}.$

 $\ensuremath{\textit{Hygiene.}}$ — Half-courses, for enoons, afternoons, or all day, throughout the year.

Theory and Practice.— Half-courses, forenoons, afternoons, or all day, throughout the year.

Theory and Practice 1. Half-courses, all day, throughout the year.

Theory and Practice 2. Half-courses, all day, throughout the year.

Theory and Practice 3. Half-courses, afternoons, or all day, first half-year.

Theory and Practice 4. Half-courses, afternoons, or all day, first half-year.

Theory and Practice 5. Half-courses, afternoons, or all day, throughout the year.

Theory and Practice 6. Half-courses, forenoons, or all day, first half-year.

Theory and Practice 7. Half-courses, afternoons, or all day, first half-year.

Clinical Medicine. Half-courses, all day, throughout the year.

Pediatrics. - Half-courses, all day, throughout the year.

- Surgery. (1) Surgery. Half-courses, all day, throughout the year.
 - (2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.
 - (3) Orthopedics. Half-courses, afternoons, throughout the year.
 - (4) Surgical Pathology. Half-courses, afternoons, December to May, inclusive.
 - (5) Clinical Surgical Pathology. Half-courses, forenoons, throughout the year.

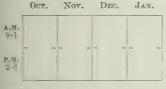
Obstetrics and Gynaecology: -

- (1) Obstetrics. Half-courses, all day, throughout the year.
- (2) Gynaecology. 66 forenoons, Dermatology and Syphilis. 66 66 66 Neurology and Psychiatry. Ophthalmology. 66 second half-year. 66 Otology. throughout the year. 66 Laryngology.

Combined Course: Ophthalmology, Otology, and Laryngology. All day, throughout the year.

DIAGRAMS OF FOURTH-YEAR ELECTIVES

Half-courses. — All-day Plan.





Physiology 3 and 4. Comparative Physiology. Biochemistry.* Bacteriology.** Pathology 1,** 5, and 6. Neuropathology.
Hygiene.
Theory and Practice 1, 2,

Clinical Medicine.
Pediatrics.
Surgery.

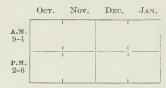
3,* 4,* 5, 6,* and 7.*

Obstetrics.

^{* =} first half-year.

^{** =} second half-year.

Half-courses. - Half-day Plan.



APR.

MAY.

Forenoons.

Comparative Anatomy 1. Physiology 3 and 4. Comparative Physiology. Biochemistry. Bacteriology.** Pathology 1.** Hygiene. Theory and Practice 6.* Genito-Urinary Surgery. Clinical Surgical Pathology. Gynaecology. Dermatology and Syphilis. Neurology and Psychiatry. Ophthalmology.** Otology.

OCT. NOV. DEC. JAN.

Laryngology.

Afternoons.

FEB. MAR.

Anatomy 1 and 2.
Comparative Anatomy 1 and 2.
Physiology 1, 2, 3, and 4.
Comparative Physiology.
Biochemistry.*
Bacteriology.**
Pathology 3, ** 4, ** 5, and 6.**
Comparative Pathology.*
Hygiene.
Theory and Practiče 3,* 4,*
5, and 7.*
Orthopedics.
Surgical Pathology.

FEB. MAR. APR.

Group of Courses Recommended for the General Practitioner.

P.M. 2-6	Medicine	Medicine	Medicine 1	Pediatrics		Surgery	Obstetries	1 2	
	Pedia	cine utries .					. 1 '		
	(1) N	Neurolog or gyn Inatomy	gy and aecolog , comp	psychi y · · arative	atry, derm	natology · · · 1, physi	. 1 '		
	*=	00,	ogy, hy		or orthoped	ies			

Group of Courses Recommended to Men interested in Surgery.

	Ост.	Nov.	DEC.	JAN.			FEB.	1	IAR.	APR.	MAY.
A.M. 9-1	cine	cine	ery	ery			G. U.	Su	rgery		1
P.M. 2-6	I Medicine	Medicin	Surger	Surgery			An	ato	my		2
	25 21									10	
	Medi	cine .							2 ha	lf-cour	ses.
	Surg	ery							2	66 66	
	_	to-urina									
	Anat	omy.							1	66 66	
	(1)	Gynaeco	ology or	clinica	l surgi	cal p	atholog	gy	1		
	(2)	Orthope	dics or	surgica	l patho	ology			1		

GENERAL PLAN OF INSTRUCTION

ANATOMY. Half-courses, afternoons, throughout the year.

Anatomy 1. October and November; December and January; February and March. Professor Dwight and Assistant Professor Warren.

This is a course in which the three parts of the body are to be dissected. This work will be supplemented by the study of frozen sections and a certain number of lectures and demonstrations.

 $N. B. \longrightarrow No$ one can take this course who has not passed his first-year anatomy.

Anatomy 2. April and May. Professor DWIGHT.

This is a course in advanced anatomy for those especially interested in the subject. Opportunities for work along special lines will be given. Students who wish to elect this course must first consult the professor of anatomy who reserves the right to reject any applicant.

Comparative Anatomy. Half-courses, forenoons or afternoons, throughout the year.

Comparative Anatomy 1. Comparative Anatomy, Embryology, Histology, and Cytology. Half-courses will be given to meet, as far as possible, the requirements of students. The exact character and hours of such courses will be arranged with the individual student.

Special arrangements may be made for courses in Histology and Embryology in connection with work in any of the specialties: such as Obstetrics, Genito-urinary Surgery, Neurology, Ophthalmology, Otology, Laryngology, etc. Plans for such courses may be settled in consultation with the clinical instructor in the specialty chosen and with Professor Minor, Dr. Bremer, or Dr. Lewis.

Comparative Anatomy 2. The development and structure of the ear, eye, and nasopharynx. A half-course has been arranged for students of Laryngology, Ophthalmology, and Otology. Afternoons, October and November.

Physiology. Half-courses, forenoons, afternoons, or all day, throughout the year.

Physiology 1. Physiology of the nervous system. A half-course in the afternoons of October and November.

The students will read classical papers, repeat important experiments, and meet the instructor at regular intervals for report and discussion. The course is planned primarily for students who intend to become clinical neurologists

Physiology 2. Physiology of the eye, the ear, and the upper respiratory tract. A half-course in the afternoons of December and January.

The students will report on suggested reading of original papers, will perform illustrative experiments, and will meet the instructor at regular intervals for report and discussion. The course is intended especially for students who have elected courses in ophthalmology, otology, and laryngology. A student may, if he desires, devote the whole time to one or more of the subjects.

Physiology 3.

Detailed study in other special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 4. Investigation.

Students, properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

Comparative Physiology. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor PORTER. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

BIOCHEMISTRY. — Research in Biological Chemistry. Half-courses, forenoons, throughout the year; all day or afternoons, first half-year.

A student may elect work in any field of biochemical research for which he is qualified by his previous training. Students are advised to elect this course during November and December, so that they may be able to include in it Biochemistry 2. (cf. p. 30.) For detailed information they are referred to the pamphlet of the Department of Biological Chemistry.

Bacteriology. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of four kinds, including (a) instruction in methods of diagnosis depending upon bacteriological procedures; (b) instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils; (c) instruction in methods of opsonic-index work, with practical application; (d) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

Pathology 1. Half-courses, forenoons or all day, second half-year.

The work will consist of (a) training in the technical methods used in pathology; (b) attendance at postmortem examinations at the various hospitals, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Pathology 2. Neuropathology. Assistant Professor E. E. SOUTHARD. Half-courses, all day, throughout the year.

The course is given either at the Harvard Medical School or at the Danvers Insane Hospital. Except in individual instances, the method of the course will involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work. Students electing to pursue their work, wholly or in part, at Danvers, are permitted to attend the daily case-readings of the hospital staff and to work upon selected cases in the wards.

Daily, except Sunday, at the Harvard Medical school or at the Danvers Insane Hospital.

Limited to two during a given month. The instructor should be consulted in advance.

In addition to these two general electives, the following special courses are also open as electives to fourth-year students:—

Pathology 3. The Classification and Diagnosis of Tumors. Professor F. B. Mallory. Half-courses, afternoons, second half-year.

The course consists of the study of the histological classification of tumors and of the normal cells on which this classification is based. It involves training in the methods of fixing and staining best fitted to bring out the characteristics of each kind of cell so that it can be distinguished from other cells. Much attention is also paid to the practical diagnosis of tumors.

Pathology 4. Protozoölogy. Dr. E. E. Tyzzer. Half-courses, afternoons, second half-year.

The first object of the course will be to enable the student to familiarize himself with a number of the more representative types and species of parasitic protozoa. The remainder of the course will consist in work upon a special problem, with the end in view of providing training in the investigation of protozoan infections.

Both experimental and histological methods will be employed. The experiments will necessarily be shaped according to the nature of the problems taken up. The histological work will consist of the morphological study of the parasites and of the changes which they produce in the host. The course is open to a limited number of fourth-year students.

Pathology 5. The Inoculable Tumors of Mice and Rats. Dr. E. E. Tyzzer. Half-courses, all day or afternoons, throughout the year.

The Department of Cancer Research offers a course on tumors to not more than four graduate students. Opportunity is afforded for the experimental and histological study of certain inoculable tumors of mice and rats, of which several different strains are available.

The work is not confined strictly to the investigation of tumors, however, but is meant to cover closely related subjects such as growth, hypertrophy, and proliferation. Students are expected to be qualified to do research upon problems which will be outlined for them. The work is to extend over at least one half-year.

Pathology 6. Experimental Pathology. Dr. F. P. GAY. Half-courses, all day, or afternoons, throughout the year.

The subject as considered in this course comprises the experimental study of such phenomena as phagocytosis (including the relations of opsonins to this process), bacteriolysis (Pfeiffer's phenomenon), hemolysis, agglutination (both of bacteria and cells), serum precipitation, antibody formation in general, and anaphylaxis or hypersusceptibility. The work consists in the study of some definite problem in this field, pursued under the personal direction of the instructor. The course will

incidentally teach certain technical biological methods, such as the inoculation and bleeding of animals, and the tests for specific properties in blood serum. Although intended primarily as introductory to more systematic research, the work will give insight as to the biological principles which underlie tests of recognized diagnostic value, such as the Widal test for typhoid, the Uhlenhuth forensic test for blood and meats, and the Bordet-Gengou "reaction of fixation" (a test for antibodies or antigens).

The course is limited to two men in any given month, who should consult the instructor previously.

Pathology 7. Ophthalmic Pathology. Dr. F. H. Verhoeff. Half-course, afternoons, February and March, Saturday excepted, at the Massachusetts Charitable Eye and Ear Infirmary.

The various pathological conditions of the eye will be demonstrated with both microscopic and macroscopic specimens. Some attention will also be given to the normal histology of the eye, and the special technique required for the preparation of microscopic specimens will be described. The bacteriology of the eye will be considered, and the more important bacteria concerned in diseases of the eye demonstrated.

Comparative Pathology. Half-courses, afternoons, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students. (These courses are also offered to graduate students.)

The laboratory work will consist in a study of such infectious and parasitic diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microörganisms investigated. At the same time attention will be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Research. Students who have taken the above pro-research courses or their equivalents will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

Hygiene. Half-courses, forenoons, afternoons, or all day, throughout the year.

The course will consist in part of laboratory instruction and in part of special research. The laboratory instruction will comprise the analysis of air, soils, water and foods, the investigation of disinfectants, etc., and epidemiology.

Before electing this subject, students are advised to consult with the head of the department, and satisfy him that they are properly qualified by previous training.

Theory and Practice of Physic. The electives in medicine offered by the Department of Theory and Practice consist of

Theory and Practice 1. Half-courses, all day, throughout the year.

This work will be given at the Massachusetts General Hospital. Each half-course of one month is limited to four students. The students will spend the entire day in the consecutive study of ward patients. Laboratory facilities will be furnished for the application of such laboratory methods as are needed for an adequate study of these patients. Attendance at autopsies will constitute a part of the work. These courses will be given under the supervision of Dr. Palfrey.

Theory and Practice 2. Half-courses, all day, throughout the year.

This work will be given at the Carney Hospital, and in the laboratory of the Department at the Medical School. Each half-course of one month is limited to four students. During the forenoons two students will alternate between the medical wards and the out-patient department of the Carney Hospital. The work there will consist in a consecutive study of ambulatory and ward patients with the application of appropriate laboratory methods. There will be also an opportunity for the medical observation of surgical cases before and after operation. During the afternoons the students will alternate between the medical wards of the Carney Hospital and the laboratory of the Department at the Medical School. In the medical wards during the afternoons the students will continue the study of assigned cases, and be on hand to take histories and make physical examinations of newly admitted cases: in the laboratory the students will engage in the experimental study of problems connected with their clinical work, the histological study of various pathological lesions, or a continuation of more complicated laboratory procedures for which the hospital laboratory does not furnish facilities. These courses will be given under the supervision of Professor Christian, assisted by Drs. Leen and CHANNING FROTHINGHAM, Jr.

Theory and Practice 3. Half-courses, afternoons, or all day, first halfyear, in the laboratory of the Department.

These courses will consist of further practice in the routine methods of the clinical laboratory and represent a continuance of the laboratory course offered to second-year students. They will be given under the supervision of Dr. H. F. Hewes, assisted by Dr. H. M. Adler.

Theory and Practice 4. Half-courses, afternoons, or all day, first halfyear. These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. J. H. Pratt, with whom special arrangements for the course must be made.

Theory and Practice 5. Half-courses, afternoons, or all day, throughout the year.

These courses will consist of research in the laboratory of the Department and will be given under the supervision of Professor Christian, assisted by Dr. Channing Frothingham, Jr. Special arrangements for the course must be made with Dr. Christian. The work will consist of investigation by means of animal experimentation with the study of pathological changes produced in various ways.

Theory and Practice 6. Half-courses, forenoons, or all day, first half-year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. H F. Hewes, with whom special arrangements for the course must be made. They will consist of chemical clinical investigation,

Theory and Practice 7. Half-courses, afternoons, or all day, first half-year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. H. M. Adler, with whom special arrangements for the course must be made. They will consist of chemical clinical investigation.

Students desirous of taking any of these courses can obtain general information in regard to the character of the work from Dr. Christian.

Clinical Medicine. Half-courses, all day, throughout the year.

The morning will be devoted to clinical work in various out-patient departments, and the afternoon to work in the wards at the Massachusetts General Hospital. One afternoon each week will be devoted to a ward visit and a demonstration in clinico-pathology. The written report of four cases will be required (two from the out-patient work and two from the ward work), and a thesis containing original work of some character, the length of which will vary according to the number of half-courses elected. Eight such courses are offered, and the student may elect as many as he chooses.

- (1) Clinical Instruction. This is of two kinds: -
- (a) Work in the morning in the Out-Patient Department under special supervision.
- (b) Work in the wards under special supervision, with the assignment of cases for study.

- (2) Didactic Teaching. One exercise each week is devoted to practical therapeutics. The use and effect of drugs in selected cases are considered. One exercise will be devoted to demonstrations in gross pathology given jointly by members of the pathological and medical departments. In this exercise the autopsy material of the previous week is studied at the Massachusetts General Hospital in relation with the clinical history, physical signs, and clinical diagnosis of each case.
- (3) Original Thesis. Each student shall present before graduation an original thesis which will embody clinical, laboratory, statistical, or literary work. The subject of the thesis shall be approved, and the work done under the supervision of some member of the medical department selected by the student.

PEDIATRICS. Half-courses, all day, throughout the year.

The work will consist of clinical instruction of cases in the wards and out-patient departments of the Infants' Hospital, Children's Hospital and the Contagious wards of the South Department. Students will be assigned to the various wards and out-patient departments by the Professor of Pediatrics and will work under his supervision, and in so far as is practicable the work will be assigned in reference to their individual needs and wishes. The students may also attend the clinical lectures given by Dr. Rotch in the third year. The direction of the clinical work will be carried out by the other members of the department. One half of each section will work in the mornings in the out-patient department of the Children's Hospital and the other half in the out-patient department of the Infants' Hospital under the direction of a member of the department. The whole section will spend two afternoons a week at the South Department under Dr. McCollom, and two afternoons in the medical wards of the Children's Hospital under the supervision of an instructor. Two clinical exercises on diseases of the ear in infants and children will be given each month through the courtesy of Dr. CROCKETT. Four exercises on the Roentgen Ray will be given each month by Dr. A. W. George. Four exercises on the opsonic-index will be given each month by Dr. C. Floyd. The remaining time will be spent on reading in connection with some subject assigned to each student, and on which a written report will be required.

Surgery: -

(1) Surgery. Half-courses, all day, throughout the year.

The instruction will consist of ward work, the examination of cases, the recording of histories, the establishing of diagnoses, the etherization of patients, the dressing of injuries, wounds, and fractures, the close observation of operations, seeing the progress of a surgical patient, and the end

results of cases. The out-patient work will consist of the establishing of diagnoses, the treatment of cases under direction, and the recording of histories. This work will be carried out at the hospitals, in the wards and out-patient departments, and will occupy a part of each day, and will be from time to time directed and supervised by instructors.

The afternoons will be devoted to library, museum, and literary work, surgical pathology, case teaching, regional surgery, and operative surgery. Seminars and conferences will be held as occasion requires. The student will be required to account for his daily work.

(2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(3) Orthopedic Surgery. Half-courses, afternoons, throughout the year.

The instruction will consist of section teaching, daily, throughout the year, at the Children's Hospital and Massachusetts General Hospital.

(4) Surgical Pathology. Half-courses, afternoons, December to May, inclusive.

The course is for students who desire to learn methods of original investigation in any line of the pathology of surgical diseases, especially in the line of experimental work. No formal instruction is given, but students will be assisted and directed in methods and technique. The cost of materials used in experimental work must be met by the student. A four months' course is advised.

(5) Clinical Surgical Pathology. Half-courses, forenoons, throughout the year.

The course will consist of a study of clinical cases with especial reference to the pathology of the lesions present and the use of the microscope in immediate diagnosis. The work will be supplemented with conferences and demonstrations in the Warren Museum.

OBSTETRICS AND GYNAECOLOGY: -

(1) Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence

of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the second half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

(2) Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor Green (Oct. to Jan.) and Assistant Professor Newell (Feb. to May), assisted by Drs. Young, Friedman, and Mason, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, which affords ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be expected to study, and report on, pathological specimens removed by operation, under the supervision of Professor Mallory.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

Dermatology and Syphilis. Half-courses, forenoons, throughout the year.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique.

NEUROLOGY AND PSYCHIATRY. Half-courses, forenoons, throughout year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows:—

- (1) Daily systematic conferences on neurological topics.
- (2) History-taking, and personal examination of patients at the outpatient departments of the Massachusetts General and Boston City Hospitals.

- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.
- (5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, $e.\ g.$, Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

The instruction in psychiatry will be as follows:—

- (1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.
- (2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.
- (3) Clinical instruction at the Boston Insane Hospital one forenoon in each week, including clinical demonstrations, and the individual study of especially assigned cases, which will also be reported and discussed at the regular evening conferences.

This course in psychiatry is open to a limited number of students, and may be taken independently of that in neurology. Several exercises will be held in common by those electing psychiatry and neuropathology.

OPHTHALMOLOGY. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital.

OTOLOGY. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to thorough clinical instruction.

In connection with the clinical courses in Ophthalmology, Otology, and Laryngology, an afternoon half-course, at the Medical School, is offered by each of the following departments: Comparative Anatomy (October and November), Physiology (December and January), Pathology (February and March), and Anatomy (April and May).

LARYNGOLOGY. Half-courses, forenoons, throughout the year.

The forenoon half-courses are held daily at the Massachusetts General Hospital, and are chiefly clinical in character. In addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

In connection with the clinical courses in Ophthalmology, Otology, and Laryngology, an afternoon half-course, at the Medical School, is offered by each of the following departments: Comparative Anatomy (October and November), Physiology (December and January), Pathology (February and March), and Anatomy (April and May).

A FULL YEAR'S COURSE IN OPHTHALMOLOGY, OTOLOGY, AND LARYN-GOLOGY, by the Departments of Ophthalmology, Otology, Laryngology, Anatomy, Physiology, Pathology, and Comparative Anatomy.

Graduates, by choosing fourth-year electives, can devote an entire year to ophthalmology, otology, and laryngology, including the embryology, physiology, pathology, and anatomy of the eye, ear, throat, and related structures. The following arrangement has proved successful:—

	Oct. Nov.	Dec. Jan.	Feb. Mar.	Apr. May	
A.M.	Otology or Laryngology	Laryngology or Otology	Ophtha	llmology	
P.M.	Embryology	Physiology	Pathology	Anatomy	

Students not desiring ophthalmology can elect courses in otology, or laryngology, which will fill the forenoons of the entire year in combination with the afternoon laboratory courses suggested above.

EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The Mid-Year and June examinations are for those only who are members of the School at the time, and for those entitled to apply for the degree. The September examination is for those only who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows:-

First Year.—Anatomy * (3 hrs.), Histology and Embryology * (3 hrs.), Physiology (3 hrs.), Biological Chemistry (3 hrs.).

Second Year. — Bacteriology * (1 hr.), Pathology * (2 hrs. written, 1 hr. practical), Hygiene (1 hr.).

Third Year. — Materia Medica and Therapeutics* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical, as follows: Surgery, 15 min.; Orthopedic Surgery, 15 min.; Surgical Technique, 15 min.; Surgical Pathology, 15 min., taken in second year), Clinical Surgery (1 hr. written, 1 hr. practical, as follows: Clinical Surgery, 45 min.; Genito-Urinary Surgery, 15 min.), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth Year. — The nature of the examinations is determined by each department. The student's credit is based on his daily written record of work, and on a practical or written examination at the end of each course, or on all combined.

In addition to the above examinations every student is required: -

To dissect the three parts of the body to the satisfaction of the demonstrator:

To receive practical instruction in anaesthesia;

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hespital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

^{*} The examinations in these subjects are held at the end of the first half-year.

To take charge of and report on six cases in Obstetries, and to receive instruction on at least one of them;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES.

Degree of Doctor of Medicine.

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine cum laude will be given to candidates who have obtained an average of eighty per cent., or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before May I of the year in which they propose to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of May.

A graduate of another Medical School of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned, but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

Degree of Master of Arts.

The degree of Master of Arts is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the fifteenth day of January.

FEES AND EXPENSES.

The fees are: - For matriculation, five dollars; for instruction, two hundred dollars for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars. During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique; and a deposit of five dollars is required to cover breakage in the course in Clinical Pathology, the balance of this deposit to be returnable at the end of the year. In the fourth year a charge of three dollars is made for material used in the course in Operative Surgery. A deposit of two dollars with the Dean will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year. There is a graduation fee of twenty dollars for the degree of A.M.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Inarmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Payment of Fees.

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and fifty-four dollars; each second-year student

^{*} The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

is required to pay in the same manner one hundred and twenty-eight dollars; and all other students are required to pay, in the same manner, the sum of one hundred and twenty dollars. Fourth-year students electing Surgery are required to pay a charge of three dollars for material in Operative Surgery. The remainder of the tuition fee—eighty dollars each for all students—must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of fifty dollars, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School. No degree will be conferred till all dues to the School are discharged.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at various prices can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

CLINICAL ADVANTAGES.

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various Clinical Subjects those advantages which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital.—During the past year, more than fifty-seven hundred patients were treated in the wards, and over twenty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, and Diseases of the Nervous System. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital.—During the past year, over nine thousand cases were treated in its wards, and over thirty-eight thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital. — More than seven hundred patients were delivered during the last year in the Hospital. In the out-patient department, more than two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — More than forty thousand patients were treated at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of eases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital. — The wards of the Hospital are devoted entirely to children under two years of age. About three thousand children of all ages are treated annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than seven hundred cases were treated in the wards and about seventy-six hundred in the outpatient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital. — During the past year two hundred and five patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, — pathological, chemical, and physiological, with psychological methods, — work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston Insane Hospital. — During the past year one thousand and eighty-seven patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Emergency cases are received; the whole number of patients admitted last year was four hundred and sixteen, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary.—Over thirty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.—This Hospital is designed particularly for the treatment of chronic diseases. It has two hundred and fifty beds, with an average daily number of patients of about two hundred and thirty. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent. of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Carney Hospital. — During the past year there were treated at this hospital about nine hundred ward patients and nearly four thousand new out-patients in the surgical service; over six hundred ward patients and more than three thousand new out-patients in the medical service; two hundred operative ward patients and twelve hundred new out-patients in the orthopedic service; and one hundred operative ward cases and ten thousand out-patients in the ophthalmic service. More than eight hundred cases, covering a large variety of diseases, were operated on by the surgical service. The surgical, medical, and orthopedic services are under the direction of single heads with continuous service, who with assistants manage both the house and out-patient departments.

Clinical instruction will be given in connection with the surgical, medical, orthopedic, and ophthalmic services, and opportunity will be afforded for a limited number of qualified men to engage in clinical investigation under the direction of the heads of services and their assistants. The orthopedic clinic offers special opportunities for the study of chronic joint affections in the adult.

Students are also permitted to visit the Free Hospital for Women on application to the physicians on duty.

There are more than sixty appointments annually for Internes in the various hospitals, and nearly as many more for Assistants in the outpatient departments. Appointments for the Massachusetts General and Boston City Hospitals are for terms of one to two years (according to the service chosen); for the Boston Lying-in Hospital for six months; and for the Free Hospital for Women for nine months.

WARREN ANATOMICAL MUSEUM.

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. William Fiske Whitney.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES.

Medical School students who are engaged in research work may have access to the special libraries of the various departments on application to the persons in charge. These libraries are seven in number, consisting of three large combined departmental libraries in buildings B, C, and D, and of four small separate departmental libraries in building E. The total number of books in all the libraries is 12,788, and of pamphlets 23,820. In addition 306 medical journals and society publications are taken, of which a few, however, are duplicates. The students have a small general medical library for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School. The Boston Public Library is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 60,000 bound volumes and 35,000 pamphlets, and nearly 700 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS.

FELLOWSHIPS.

Bullard Fellowships. In 1891, William Story Bullard, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established with a yearly income of two hundred and twenty-five dollars each:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.
THE JOHN WARE MEMORIAL FELLOWSHIP.
THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

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Applications for the Bullard Fellowships must be handed to the Dean on or before October 1.

Austin Fellowships. In 1900, four teaching fellowships, of five hundred dollars each, were established from the income of the Austin Fund.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

Scholarships.

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

Barringer Scholarships. Two, known as the Edward M. Barringer Scholarship No. 1, and the Edward M. Barringer Scholarship No. 2, and having a yearly income of three hundred dollars and two hundred dollars respectively, from a bequest of Edward M. Barringer, will be awarded to deserving students, preferably those of the fourth class.

The James Jackson Cabot Scholarship. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a scholarship "to aid and encourage practical work in scientific medicine."

David Williams Cheever Scholarship, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams

Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

Isaac Sweetser Scholarship was founded in 1892 by Mrs. Anne M. Sweetser. The income of two hundred and fifty dollars is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

Orlando W. Doe Scholarship. The bequest of Orlando Witherspoon Doe (a.b. 1865, m.d. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

The Lewis and Harriet Hayden Scholarship for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income is two hundred and twenty-five dollars.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

Joseph Eveleth Scholarships. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

HILTON SCHOLARSHIPS. Two Scholarships with an income of two hundred and twenty-five dollars each were founded in 1897 from a bequest of William Hilton.

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

The John Thomson Taylor Scholarship, with an income of two hundred dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother. John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

Lucius F. Billings Scholarship, with an income of two hundred dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings.

The Joseph Pearson Oliver Scholarship, with an income of three hundred and twenty-five dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. (Harvard 1871), to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

Francis Skinner Fund. A fund of five thousand dollars, the gift of an unknown donor, was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is payable every other year to one or more meritorious students needing assistance. The next payment will be made in 1910.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

All applications for scholarships or pecuniary aid, except for the Cheever and Hayden Scholarships, must be handed to the Dean on or before June 7.

Applications for the Cheever and Hayden Scholarships must be handed to the Dean on or before *November 30*. These scholarships are open only to students who are members of the school at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained of the Dean.

PRIZES

Boylston Medical Prizes.—These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1908 a prize was awarded to James Homer Wright, M.D., S.D., for an essay entitled "The Histogenesis of the Blood-platelets."

For 1909 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy*, *Physiology*, or *Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology.* The subject to be chosen by the writer.

Dissertations on these subjects must be sent to the same address as below on or before January 1, 1909.

For 1910 two prizes are offered: -- /

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy, Physiology, or Physiological Chemistry*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology.* The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before *January 1*, 1910.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.

2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: William F. Whitney, M.D., President; Harold C. Ernst, M.D., Secretary; Franz Pfaff, M.D., Theobald Smith, M.D., William T. Porter, M.D., Edward H. Nichols, M.D.

The address of the Secretary of the Boylston Medical Committee is HAROLD C. ERNST, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found in the University Catalogue.

COURSES FOR SPECIAL STUDENTS.

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work.

In addition, certain Departments offer courses, not a part of the regular curriculum, but specifically designed for special students; as follows:—

- Anatomy. Professor Dwight, Assistant Professor J. Warren, and Assistants.
- (1) Course for artists, teachers, and others. (Essentially the regular first-year course with dissection.)
 - (2) Special instruction and opportunities for research.

Physiology. Professor Cannon.

Physiological Research.

COMPARATIVE PHYSIOLOGY. Professor Porter.

Physiological Research.

BIOLOGICAL CHEMISTRY. Professor Folin, and Drs. Alsberg and Henderson.

Biochemical Research.

PHARMACOLOGY. Professor Praff and Dr. Tyrode.

Pharmacological Research.

BACTERIOLOGY. Professor Ernst, and Drs. Frothingham and Page.

- (1) Elementary courses beginning at other times than October 1 and February 1, for groups of not fewer than four students.
 - (2) Advanced instruction to groups of not fewer than four students.
- (3) Research course for advanced students. Desks will be assigned at any time.

CLINICAL PATHOLOGY. Assistant Professor Wright.

- (1) Research in bacteriology and pathology.
- (2) Instruction in bacteriological and pathological technique and in diagnosis by laboratory methods.
- (3) Weekly demonstrations in pathological anatomy in conjunction with Assistant Professor Richard C. Cabot, who will discuss the clinical aspects of the cases.

Comparative Pathology. Professor Theobald Smith.

Research. Problems in experimental and comparative pathology with special reference to infectious and parasitic diseases.

Hygiene. — and Dr. Magrath.

- (1) Analysis of water and sewage.
- (2) Analysis of foods and the detection of adulterants.
- (3) Analysis of air and soils.
- (4) Inspection of meats and other foods.
- (5) Examination of disinfectants.
- (6) Research.

SURGERY. Professor BURRELL and Dr. Hubbard.

- (1) Special courses in surgical technique.
- (2) Research.

These courses will be given in the Laboratory for Surgical Research that has been recently established under the direction of Professor Burrell and Dr. Hubbard. Application may be made to either of those gentlemen. The laboratory is equipped with the necessary apparatus for surgical operations on animals and special courses of an elementary character in the technique of operation can be provided, or opportunity for research work on surgical problems may be given to persons who are satisfactorily qualified.

Hours and Fees.

Applicants for the above courses should make arrangements as to time and fees with the respective heads of departments. They should then register and pay their fees at the Dean's office.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged, for graduates of recognized medical schools, an improved plan of instruction, embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish abundant material for all purposes of instruction. The following are the principal institutions:—

Massachusetts General Hospital,
Boston City Hospital,
Boston Dispensary,
Massachusetts Eye and Ear Infirmary,
Boston Lying-in Hospital,
Infants' Hospital,
Children's Hospital,
McLean Hospital (for the Insane),
Boston Insane Hospital,
Carney Hospital,
Free Hospital for Women.

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

Instruction in the graduate courses is, with but few exceptions, entirely distinct from that of the undergraduate department of the School; but students of the former are admitted also to all the regular lectures (not clinical) of the latter, without extra charge, during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June.

FEES.

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

SUMMER COURSES OF INSTRUCTION.

During the summer of 1909, courses in many branches of practical and scientific medicine will be given by teachers in the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories of the School by the instructors in charge. These courses are open only to graduate and undergraduate students of medical schools recognized by the Faculty of Medicine, and to such others as the Dean of the Faculty approves.

A list of the Summer Courses will be announced early in the Spring. For further information address the *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

COURSES PROVIDED IN THE GRADUATE SCHOOL FOR 1908-09.

The following are the Courses provided in the Graduate Department for 1908-09.

SUBJECT.	Instructor.	PLACE.	No. of Exer- cises.	TIME.	FEE.
Anatomy					
1. Special Anatomy Instruction	Prof. Dwight	Medical School	:	Special	Special.
2. Anatomy of the Joints	Prof. Dwight	Medical School	12	Special	\$25.
3. Topographical and Applied Anat.	Asst. Prof. Warren	Medical School	12	Special	25.
4. Dissection Courses	Dr. Cheever	Medical School	:	Feb., Mar., April	15-30.
5. Anatomy of Nose and Throat	Dr. Mosher	Medical School	12	Special	25.
6. Genito-Urinary Anatomy, Male	Dr. Flagg	Medical School	5	After Feb. 1	25.
7. Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	8-9	Feb., Mar., April	25.
Comparative Anatomy					
8. Comparative Anatomy 1		Medical School	:	Special	30.
9. Comparative Anatomy 2		Medical School		Oct., Nov.	30.
Physiology					
10. Detailed Study in Physiology	Prof. Cannon	Medical School	43	Oct. to May	Special.
11. Investigation in Physiology	Prof. Cannon	Medical School	43	Oct. to May	Special.
Comparative Physiology					
12. Experimental Work in Physiology	Prof. Porter	Medical School	:	Oct. to May	Special.
Biological Chemistry					
†13. Advanced Biological Chemistry	Prof. Folin and Drs. Alsberg and Henderson	Medical School	:	Special	Special.
†14. Biochemical Methods	Prof. Folin and Drs. Alsberg Medical School and Henderson	Medical School	:	Special	Special.

		25.		Special.	25.	25.	25.	25.	25.	25.	50.		30.	30.
		Special		Special	Feb.—May	Feb.—May	Oct.—May	Oct.—May	Feb.—May	Oct.—May	Feb., Mar.		Oct., Nov.	Dec., Jan.
:		:		:	:	:	25	:	:	:	48		:	:
		Medical School		Med. Sch., Boston City & Mass. General Hosps.	B. C. H. and M. G. H.	Medical School	Med. Sch. and Danvers Insane Hospital	Medical School	Medical School	Medical School	Mass, Charitable Eye and Ear Infirmary		Medical School	Medical School
and Henderson		Prof. Ernst		Profs. Councilman, Mallory, and Wright	Profs. Mallory and Wright	Prof. Mallory	Prof. Southard	Dr. Tyzzer	Dr. Tyzzer	Dr. Gay	Dr. Verhoeff		Prof. Smith and Assistants	Prof. Smith and Assistants
713, MESCAUCH IN DRIVING NEW CONTRIBUTOR	Bacteriology	†16. Research and General Laboratory Work in Bacteriology	Pathology	17. Research and General Laboratory Work in Pathology	18. Fourth-Year Elective in Pathology	19. The Classification and Diagnosis of Tumors	20. Neuropathology	21. The Inoculable Tumors of Mice Dr. Tyzzer and Rats	22. Protozoology	†23. Experimental Pathology	†24. Ophthalmic Pathology	Comparative Pathology	†25. a. The Comparative Pathology and Etiology of Infectious and Parasitic Diseases	thology and

* Time includes months named. When time and fee are "special," arrangements must be made with the instructor, \dagger Women admitted.

Fee.		\$50.	35.		Special.		25.	25.	25.	25.	25.	25.	25.	25.	30.	30.	30.
TIME.*		Special	Special		Special		Oct.—May	Oct.—May	Oct.—May	Oct.—Jan.	Oct.—May	Oct.—Jan.	Oct.—Jan.	Oct., Nov., Dec.	Nov.	Dec.	Jan.
No. of Exercises.		:	:		:		:	:	:	:	:	:	:	12	24	24	24
PLACE.		Medical School	Medical School		Medical School		Mass. General Hospital	Carney Hospital and Medical School	Medical School	Medical School	Medical School	Medical School	Medical School	Mass. Gen. Hosp. and Medical School	B. C. H., O. P. D.	B. C. II., O. P. D.	В. С. Н., О. Р. D.
INSTRUCTOR.		Prof. Harrington	Prof. Harrington		Prof. Pfaff and Dr. Tyrode		Dr. Palfrey	Prof. Christian and Drs. Leen and Frothingham	Drs. Hewes and Adler	Dr. Pratt	Prof. Christian and Dr. Frothingham	Dr. Hewes	Dr. Adler	Dr. Hewes	Dr. F. W. White	Dr. F. W. White	Dr. F. W. White
Subject.	Hygiene	126. Hygiene, general	t27. Hygiene, special courses	Pharmacology	†28. Research in Pharmacology	Medicine	29. Theory and Practice A	30. Theory and Practice B	31. Theory and Practice C	Theory and Practice D	Theory and Practice E	34. Theory and Practice F	Theory and Practice G	Theory and Practice H Diseases of Digestive Tract	187. a. Diseases of the Digestive Organs and of Metab. — Dietetics. — Hematology	b. Diseases of the Digestive Organs and of Metab. — Dietetics. — Hematology	Digestive Organs
		126.	+51		+28.		29.	30.	31.	35	33.	34.	35.	36.	†37.		

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* Time includes months named. When time and fee are "special," arrangements must be made with the instructor. † Women admitted.

FEE.	ı	\$50.		25.	25.	25.	25.	-	25.	25.	25.	25.	25.	Special.		25.
TIME.*		24+ Oct.—May		Oct.—May	Special	OctMay	Oct.—May		Oct.—May Oct.—May	Oct.—May	Jan.	Apr., May	Oct. 1—Feb. 1	Oct.—May		Oct.—May
No. of Exer- cises.		24+		26	:	5	:		12 26	26	12	15	12			26
PLACE.		Unildren's Hospital Mass, General Hospital Carney Hospital		Boston Lying-in Hosp.	Boston Lying-in Hosp.	Medical School	Boston Lying-in Hosp. and Medical School		Boston City Hospital Boston City Hospital	Boston City Hospital	Boston Dispensary	St. Elizabeth's Hospital	Free Hospital for Women	Free Hospital for Women		Infants', Children's, Boston City Hospital and Medical School
Instructor.		Profs. Bradford & Nichols, Drs. Lovett, Brackett, Goldthwait, Pratt, Thorndike, George, Osgood, Soutter, & Brown		The Department Staff	Address Prof. C. M. Green	The Department Staff	Address Prof. C. M. Green		Prof. C. M. Green, Drs. Newell, Young, Friedman and Mason		Dr. Storer	Dr. Storer	Dr. Graves	Dr. Graves		Profs. Rotch, McCollom, and Morse, Drs. Ladd, Dunn, Bowditch, Lucas, and
SUBJICT.	Orthopedic Surgery	755. General Orthopedic Surgery, 4 courses	Obstetrics	56. Clinical Obstetrics, 8 courses	57. Clinical Obstetrics, 8 courses	58. Operative Obstetrics, 8 courses	59. Clinical and Operative Obstetrics	Gynaecology	60. A Gynaecology, 8 courses B Gynaecology, out-patient, 8 courses	A and B Gynaecology	f61. Gynaecology	162. Operative Gynaecology	63. Clinical Gynaecology	64. Gynaecological Pathology	Pediatrics	f65. Pediatrics, 8 courses

	25.	50.		25.		15.	20.	20.	20.	20.	50-75.		25.		Special.	25.	25.
	Oct.—May	Oct.—May		Oct. to Jan.		Oct.—May	Oct.—May	Oct.—May	24+ Oct.—May	Feb.—May	Oct.—May		Oct.—May		Sept.—May	Feb.—Apr.	Special
	24	48		24		:	24+	24+	24+	24+			:		:	25	
	Mass, General Hospital	Mass, General Hospital		Boston Dispensary		Mass. General Hospital	Mass. General Hospital	Mass. General Hospital	Mass. General Hospital	Boston City Hospital	Med. Sch., Mass. Gen. & Long Island Hosps.		McLean and Boston Insane Hospitals			Eye and Ear Infirmary	Medical School
	Prof. Bowen, Drs. C. J. White, Towle and Burns	Prof. Bowen, Drs. C. J. White, Towle and Burns		Asst. Prof. Post and Dr. C. M. Smith		Prof. Putnam, Drs. Taylor and Waterman	Prof. Putnam	Dr. Taylor	Dr. Waterman	Dr. Knapp	Dr. Taylor		Drs. Cowles, Tuttle and Noyes		Prof. Blake	Dr. Hammond	Dr. Knowles
Dermatology	66. Dermatology, 4 courses	67. Advanced Dermatology, 4 courses	Syphilis	68, Syphilis	Neurology	†69. Advanced Clinical Neurology	†70. Clinical Neurology	†71. Clinical Neurology	†72. Clinical Neurology	†73. Clinical Neurology	†74. Laboratory and Clinical Neurology	Psychiatry	75. Psychiatry	Otology	76. Research in Otology	777. Operative Otology	478. Oper. Surg. of Temp. Bone

Time includes months named. When time and fee are "special," arrangements must be made with the instructor. Women admitted.

FEE.		\$50.	25.	25.	25.		25.	25.	25.	25.	25.	200.
TIME,*		48+ Feb. and March	Oct., Nov.	Special	Feb.—May		Oct., Nov.	Dec., Jan.	48 Feb., March	Apr., May	Feb., March	Oct.—May
No. of Exercises.		48+	26	:			48	48	48	48	48	:
PLACE.		Mass. Charitable Eye and Ear Infirmary	M. C. E. and E. I.	M. C. E. and E. I.	Mass. Charitable Eye and Ear Infirmary		Mass. General Hospital	Mass. General Hospital	Mass. General Hospital	Mass. General Hospital	Harvard Medical School	M. G. H., B. C. H., and Medical School
INSTRUCTOR.		Asst. Prof. Standish and Drs. Jack and Clap	Dr. Quackenboss	Dr. Spalding			Prof. Coolidge, Drs. Cobb,	Prof. Coolidge, Drs. Cobb, Clark, Goodale, and Mosher	Prof. Coolidge, Drs. Cobb, Clark, Goodale, and Mosher	Prof. Coolidge, Drs. Cobb, Clark, Goodale, and Mosher	Drs. Goodale and Barnes	
Subject.	Ophthalmology	79. Ophthalmology	80. Ophthalmology, 2 courses	81. Ophthalmology	82. Fourth-Year Elective	Laryngology and Rhinology	83. a. Diseases of the Throat and Nose	b. Diseases of the Throat and Nose	e. Diseases of the Throat and Nose Prof. Coolidge, Drs. Cobb, Clark. Goodale, and Mosh	d. Diseases of the Throat and Nose Prof. Coolidge, Drs. Cobb, Clark, Goodale, and Mosk	84. Pathology of the Nose and Throat Drs. Goodale and Barnes	85. Combined course in Ophthal- mology, Otology, and Laryng- ology

* Time includes months named. When time and fee are "special," arrangements must be made with the instructor.

TABULAR VIEW

OF

SUMMER COURSES OF INSTRUCTION

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1908

.v.	Subject	Instructor	Place	No.of Exer-	Begins	Ends	Days	Hour	Fee
	Anatomy								
-	Anatomy of Nose and Throat	Dr. Mosher	Medical School	12	Aug.	Sept.	Special	:	£25
CI	Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	9	June	1 Sept. 29			25
. 00	a. Surface Anat. on Live Model	Dr. Scannell	Medical School	5	July	:	:	:	10
	b. do.	do.	do.		Aug. Sept.	: :	: :	: :	10
4	Liv. An. of Chile	d Dr. George	Medical School	1:	:	:	:	:	25
	Physiology			<u> </u>					
10	Practical P	Dr. Martin	Medical School	23	July	1 July 31 1 July 31	31 Daily 31 Daily	9-5	40
	Biological Chemistry								
9	Research in Biological Chemistry	Prof. Folin and Drs. Alsberg and Henderson	Medical School	:	:	:		:	:
k-	Biological Chemistry	Mr. Black and Dr. McCrudden	Medical School	8	July	1 July 31	31 M.Tu.W.Th.F.	3-6	25
	Bacteriology								
00	Infectious Diseases of Animals	Dr. Frothingham	Medical School		:	:	Special		20
6	Bacteriology	Drs. Perry and Page	Medical School	53	July	July 31	July 31 M.Tu.W.Th.F.	3.15	30
10	Bacteriology	Drs. Page and Perry	Medical School	21	Ang.	1 Aug. 31	M. Tu. W. Th. F.	ಣ	30
11	Tropical Discases	Dr. Tobey	Medical School	22	July	1 July 31 Daily	Daily	5-6	25
12	Bacterial Vaccines	Dr. Floyd	Medical School	27	July	1 July 31 Daily	Daily	9-12	30

	25	25	35	90				25	20	20	25	30	30	20	25	25	25
	9-7	2-6	9-5	9-12				11 11	9-11	17.	4 7	$10-12\frac{1}{2}$	$10-12\frac{1}{2}$	9-1		:	•
	Daily	Daily	31 Daily 31 Daily	Daily				31 M. W. F. 16 M. W. F.	M.Tu.W.Th.F.	M.Tu.W.Th.F.	29 M.Tu.W.Th.F. 28 M.Tu.W.Th.F.	4 Daily	1 Daily	15 Daily	1 June 30 M.Tu. W.Th. F.	31 M. Tu.W. Th.F.	31 M.Tu.W. Th. F.
	1 June 30 Daily	1 July 31	1 July 31 1 Aug. 31	3 Sept. 12 Daily				19 July 3 Sept.	1 July	3 Aug. 28	1 July 29 3 Aug. 28	8 July	6 Aug. 1	15 July	1 June 30	1 July 31	1 Aug.
	June	July	July Aug.	Aug.		:		June Aug.	July	Aug.	July Aug.	June	July	June	June	July	Aug.
	23	23	31	36		:		19			21	24	24	25	22	23	21
	Medical School	do.	Mass. Gen. Hosp.	Eye and Ear Inf.		Medical School		Good Samaritan do.	Medical School & Mass. Gen. Hosp.	do.	Medical School	City Hospital	do.	Mass. Gen. Hosp.	Medical School	do.	do.
	Drs. Robertson and Ordway	do.	Dr. Oscar Richardson do.	Dr. Verhoeff		Dr. Tyrode		Drs. Stone and Lee	Drs. Hewes and Adler	do.	Drs. Hewes and Adler do.	Dr. White	do.	Dr. Lord	Dr. Overlander	do.	do.
Pathology	a. Gross and Microscop. Pathology Drs. Robertson and Ordway	ь. до.	a. Path. Anat. and Autop. Techn. Dr. Osear Richardson b. do.	ClinPath. Course in Dis. of the Eye Dr. Verhoeff	Pharmacology & Therapeutics	Pharmacology and Therapeutics	Medicine	a. Tuberculosis b. do.	Clinical	<i>b</i> . do.	a. Clinical Pathologyb. do.	a. Diseases of the Dig. Organs & Dietetics & Diseases of Metab.	b. do.	Clinical Diagnosis, Therapeuties, and Laboratory Methods	a. Lab. Courses in Clin. Diag.	b. do.	c. do.
	13		14	15		16		17	00		16	20		21	22		

No.	Subject	Instructor	Place	No. of Exer- cises.	No. of Exer- Begins cises.	Ends	Days	Hour	Fee
	Pediatrics								
50	Pediatrics	Dr. Morse	Infants' Hospital	12	June 1	June 29	M. W. F.	11	\$20
21	Pediatrics	Dr. Ladd	Infants' Hospital	13	June 2	June 30	June 30 Tu. Th. S.	11	20
. 55	Pediatrics	Dr. Dunn	Infants' Hospital	26	July 1	July 31	Daily	3-5	20
26	Pediatrics	Dr. Bowditch	Children's Hosp.	13	Aug. 1	Aug.	29 Tu. Th. S.	11	20
27	Pediatrics	Dr. Dunn	Infants' Hospital	13	Aug. 3	Aug. 31	Aug. 31 M. W. F.	11	20
28	Pediatrics	Dr. Morse	Floating Hospital	12	Aug. 17	17 Aug. 29 Daily	Daily	00	20
53	Pediatrics	Dr. Dunn	Infants' Hospital	6	Aug. 3	3 Aug. 25	25 M. Tu.	S31	20
30	Pediatrics	Dr. Fairbanks	Children's Hosp.	œ	Aug. 5	Aug.	29 W. S.	4	20
31	a. Pediatrics	Dr. George	Children's Hosp.	00 00	Aug. 6 Sept. 3	6 Aug. 28 Th. F. 3 Sept. 25 Th. F.	Th. F. Th. F.	3-5	20
32	Pediatrics	Dr. Bowditch	Children's Hosp.	13	Sept. 1	Sept. 29	29 Tu. Th. S.	11	20
33	Pediatrics	Dr. Morse	Children's Hosp.	13	Sept. 2	Sept. 30	Sept. 30 M. W. F.	$11\frac{1}{2}$	20
37	Pediatrics	Dr. McCollom	South Dept., B.C.II.	6	Sept. 1	Sept. 29	M. Tu.	02	50
35	Pediatrics	Dr. Fairbanks	Children's Hosp.	6	Sept. 2	Sept. 30 W.	W.S.	4	20
	Surgery								
36	a. Major, Clinical and Operative Surgery, with, during July, Drs. Lund and Nichols Surgical Pathology	Drs. Lund and Nichols	City Hospital	24	June 3	3 June 29 Daily	Daily	10-12	161
	b. do.	do.	City Hosp.& II.M.S. City Hospital	24	July 1 Sept. 2	1 July 31 2 Sept. 30	31 Daily 30 Daily	10-12	88
22	a. Major Surgery	Dr. Lothrop	City Hospital	26	June 1	June 30 Daily	Daily	91 91	30
		do.	do.			1 Aug. 31 Daily	Daily	10	30
	d. do.	do.	do.		Sept. 1	1 Sept. 30 Daily	Daily	10	30

25	25	25	25	25	25	25	25	25	52	20	20	15	15	25	25	25	25	25	25		90	90
10-1	10-1	10-1		:		:	:	:		94-11	$9\frac{1}{2}-11$	91-12	$9\frac{1}{2} - 12\frac{1}{2}$	9-12	9-12	9-12	91-1	10-1	10-1		•	
I June 29 Daily I July 31 Daily		Sept. 30 Daily	1 June 30 Daily	2 July 31 Daily	1 Aug. 31 Daily	Sept. 29 Daily		•		1 June 30 Daily 1 Aug. 31 Daily	Sept. 30 Daily	1 July 31 Daily 1 Aug. 31 Daily	Sept. 30 Daily	1 July 31 Daily	Aug. 31 Daily	Sept. 30 Daily	1 June 29 Daily	M. W. F.	M. W. F.		June 1 June 30 Daily	July 1 July 31 Daily
June 1		Sept. 2	June 1		Aug. 1		July	Aug.	Sept.	June 1	Sept. 1	July 1	Sept. 2	July 1	Aug. 1	Sept. 1	June 1	July	Aug.		June 1	July
255	25	25	30	30	30	30	9	9	9	25	25	26	26	27	27	22	25	14	14		26	26
Mass. Gen. Hosp.	do.	do.	Children's Hosp.	do.	do.	do.	Medical School	do.	do.	City Hospital do.	do.	Boston Dispensary do.	do.	City Hospital	do.	do.	Boston Dispensary	Mass. Gen. Hosp.	do.		Children's Hosp. Boston Dispensary, Warren Museum, Carney Hospital, Mass. Gen. Hosp.	do.
Drs. Porter and Jones do.	do.	do.	Dr. Stone and volunteer Children's Hosp.	do.	do.	do.	Dr. Hubbard	do.	do.	Dr. Crandon do.	do.	Dr. Perry do.	do.	Dr. Scannell	do,	do.	Dr. O'Neil	Dr. Davis	do.		Prof. Bradford, and Drs. Lovett, Brackett, Goldthwait, A. Thorn- dike, Dane, Nichols, Osgood, Soutter, Pratt, Brown and George	do.
General Surgery	do.	do.	Surgical Diseases of Children	do.	do.	do.	Operative Surgery on Animals	do.	do.	GenUrin. Surg. for Out-Patients Dr. Crandon do.	do.	Genito-Urinary Diseases do.	do.	Major Surgery	do.	do.	Genito-Urinary Surgery	Cystoscopy	do.	Orthopedic Surgery	Orthopedic Surgery	do.
. e	_: _:	. d.	a.	6.	0.	d.	a.	6.		è.	0	a. b.	3	a.	9.	ಲೆ		a.	0.		46 a.	9.
88			38				40			7		42		43			44	45			46	

	Subject	Instructor	Place	Exer-	Exer- Begins cises	s Ends	Days	Hour	Fee
	Obstetrics								1
1-	47 Clinical Obstetrics	Dr. Swain, assisted by Drs. Friedman, Tor- Lying-in Hospital bert, and Mason	Lying-in Hospital	:	May	May 1 Oct.	1 Daily	•	00
27	Clinical O	Dr. DeNormandie	Lying-in Hospital	26	June	1 June 2	29 Daily	11 1	20
	6. do.	Dr. Swain	ς σ	27	Aug.	1 Aug. 3	31 Daily	11	300
		Dr. Torbert	do.	52		2 Sept. 29 Daily	Daily	11	20
	Gynaecology								
49	Diagnosis and Treatment	Dr. Young	City Hospital	12	June	1 Aug. 31 Daily	Daily Daily	16	30
50	Gynaecology	Dr. Friedman	City Hospital	13	July	2 July 3	2 July 31 Tu. Th. S.	10-12	55
51	Gynaecology - Diagnosis and Treatment	Dr. Friedman	City Hospital	12	Sept.	3 Sept. 2	3 Sept. 29 M. W. F.	16	99
52	 a. Minor Gynaecology b. do. c. do. 	Dr. Mason do.	City Hospital do. do.	13 13 13	June Aug. Sept.	1 June 2 2 Aug. 3 1 Sept. 2	1 June 29 Tu. Th. S. 2 Aug. 30 Tu. Th. S. 1 Sept. 29 Tu. Th. S.	-id -id -id 6 - 6 - 6	9 8 9
53	a. Gynaecology - Diagnosis and	Dr. Graves	Free Hospital for	10	July	3 July 3	31 Tu. F.	9-12	07
	b. do.	do.	do.	10	Aug. Sept.	4 Aug. 2 1 Sept. 2	28 Tu. F. 29 Tu. F.	9-12	20 20
	Dermatology & Syphilis								
10	a. Clinical Dermatologyb. do.	Dr. White do.	Mass. Gen. Hosp.	26	July Sept.	1 July 31 Daily 1 Sept. 30 Daily	Daily Daily	9-12	25.
55	Clinical Dermatology	Dr. Burns	Mass. Gen. Hosp.	27	Aug.	1 Aug. 30 Daily	Daily	9-12	20

						1
52 55 55 55 55 55 55 55 55 55 55 55 55 5	, E	25 25	25	25	15 15 15	15 15
9-12 9-12 9-12	9-12	92-11	: :	9-11	10-12 10-12 10-12 10-12	9-11
1 June 30 Daily 1 July 31 Daily 1 Aug. 31 Daily	1 Aug. 29 Daily 1 Sept. 28 Daily	1 June 29 M. W. F. 1 July 29 M. W. F.	1 June 30 Daily 1 July 31 Daily	1 June 30 Daily 1 July 31 Daily	1 June 30 Daily 1 July 31 Daily 1 Aug. 31 Daily 1 Sept. 30 Daily	June 26 M. W. F. July 24 M. W. F. Sept. 28 M. W. F.
June July Aug.	Aug. Sept.	July	June	June	June July Aug. Sept.	June July Sept.
26 2 26 2 26 2	24 24 8	13	26	20 50	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2 2 2 2
Mass. Gen. Hosp. do.	Eye and Ear Inf.	Eye and Ear Inf. do.	Eye and Ear Inf.	Eye and Ear Inf. do.	Mass. Gen. Hosp. do. do.	City Hospital do. do.
Dr. Baldwin do. do.	Dr. Quackenboss do.	Dr. Spalding do.	Dr. Crockett	Dr. Amadon do.	Dr. Clark do. do.	Dr. Coffin do. do.
Neurology a. Clinical Neurology b. do.	Ophthalmology Clinical Ophthalmology do.	Clinical Ophthalmology do.	Operative	Clinical Otology do.	Laryn	Rhinology and Laryngology do.
<u> </u>	. e.	6.3	b. a.	6.0	\$: 6 a	2 2 3 E
99	57	20	69	09	19	62

TABULAR VIEW OF UNDERGRADUATE COURSES.

FIRST YEAR - First Half-Year.

	Monday.	TUESDAY.	Wednesday.	THURSDAY. FRIDAY.	SATURDAY.
9-10	Octo Anatomy. November, Demonstrations and	October. Anatomy. Lecture. November, December. Demonstrations and Laboratory Work.	Oct., Nov., Dec., Anatomy. Lecture.	October. Anatomy. Lecture. November, December. Demonstrations and Laboratory Work.	Oct., Nov., Dec., 9-11. Histology. January, 9-11. Anatomy. Lecture.
10-1		October, . Demonst	October, November, December, January. Demonstrations and Laboratory Work.	tanuary. y Work.	Oct., Nov., Dec., Jan. 11-1. Anatomy. Lecture.
2-6		Lectures, De	January. Lectures, Demonstrations, and Laborators Work.	orator Work.	

October, November, December. Histology. Lecture.	Histology. Laboratory.
2-2.30	2.30-6

Laboratory.

Laboratory and Conference.

Laboratory.

3-6

BIOLOGICAL CHEMISTRY.

Lecture. Daily except Saturday.

2-3

FIRST YEAR. - Second Half-Year.

PHYSIOLOGY. FEBRUARY.

	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SAT	SATURDAY.
9-10	Lecture or Demonstration.		Lecture or Demonstration.	stration.			
10-12	Laboratory Experiments.	10-10.15	Writte	Written Test.		10-1	Experiments.
12-1	Written Test. 10.15-1	10.15-1	Laboratory J	Laboratory Experiments.			
			March, April, May.	ay.			
9-10	Lecture or Demonstration.		Lecture or Demonstration.	monstration.			
10-10.15	Laboratory Experiments.		Written Test.	it.		10-12.15	10-12.15 Experiments.
10.15-12	Laboratory Experiments.	10.15- 12.15	Laboratory Experiments.	xperiments.			
12-1	Written Test. 12.15-1	12.15-1	Thesis or Demonstration.	nonstration.			

SECOND YEAR. - First Half-Year.

JANUARY.	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. H.	9-12 Tuesday, Thursday, and Saturday.	10.30-12 Monday, Wednesday, and Friday. Pathology. Laboratory.	Pathology, Lectures, Daily,	Daily except Saturday. Surgical Pathology. Laboratory. Nichols.			
	9–10	9-12	10.30-12	12-1		žinį.		
December.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory.				f the Nervous	System. Laboratory. Southard.		
DECE	1 week. Pathology. Laboratory. Daily.			Pathology. Lectures. Daily.	Pathology of the Nervous System. Laboratory. Southard.			
NOVEMBER.	Pathology. Laboratory.				Bacteriology. Lectures. Daily except Saturdays.	Bacteriology. Laboratory. Daily except Saturdays.		
OCTOBER.	Pathology.			Path	Bacteriolog Daily exce	Bacteriology Daily exce		
	9–12			12-1	2-3	3-5.30		

SECOND YEAR. -- Second Half-Year.

WEDNESDAY. T	M. G. H. B. C. H. M. G. H. Surgery Surgery Clinic Clinic Clinic Industry & Practice R. H. Reibnidson Lothynn Radoor	Across	Section Work	Clinical Pathology	neory&Practice. L. Christian Room 201	Pharmacology. L. Pharmacology. L. Surgery. L. Pharmacology. L. Room 201 Pfaff	Surgery. L. Hygiene, L. Hygiene, L. Room 201 Harrington
Monday.	M. G. H. Clinical Medicine Clinic Shaffnek		Sec.	Cli	Surgical Technique Theory&Practice. L. Christian Lothrop Room 201 Room 201	Surgery, I. Room 201	Hygiene. L. Harrington

THIRD YEAR. - First Half-Year.

Wednesday, Thursday, Friday, Saturday.	Clinical Medicine Clinical Medicine Clinical Medicine Clinical Medicine Clinic Clinic Shattuck, M. G. H. Shattuck, M. G. H. Shattuck, M. G. H. Shattuck, M. G. H.	Dermatology Theory and Practice Pediatrics Theory and Practice Clinic, Stone, Lee, Clinical L. Bowen, M. G. H. Rotch, C. H. Pratt, M. G. H.	Section Work.	Theory and Practice L. Christian, Room 201	tice Cobstetries Obstetries. L. Obstetries, R. Conference Green Room 205 Room 205	L. Surgery. L. Pediatrics. L. Therapeutics. L. Room 201 Room 205 Room 205	Opti, Nov. Optinalnology Standish Pec., 40n. Standish Pec., 40n. Supery. L. Floundise Pec., 40n. Supery. R. Supery. R. Supery. Am. Supery. R. Supery. Am. Johnop and
TUESDAY.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Surgery Clinical L. Burrell, B. C. H.			Theory and Practice L. Christian Room 201	Oct., Nov. Dermatology. L. Bowen Room 201 Dec., Jan. Syphilis. L. Post, Room 205	Oct., Nor. Surgery. R. Lothrop and Greenough Dec., Aan. Orthopedies
MONDAY.	Theory and Practice Clinic Hewes, M. G. II.	Surgery Clinic M. H. Richardson M. G. H.			Obstetrics. L. Green Room 205	Surgery. L. Room 201	Oct., Nor. Ophthalmology Standish Dec., Jan. Orthopedies Bradford
	Class Evercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

THIRD YEAR. - Second Half-Year.

SATURDAY.	Clinical Medicine Clinic Clinic Shattuck, M. G. II.	Theory and Practice Chiic Pratt, M. G. H.			Psychiatry Clinic Cowles, B.I.H.		
Furbay.	Clinical Medicine Clinic Bartol, B. C. H.	Prb., Mar. Predation Predation Collinear Rotel, C. H. Mores, Grove St. Apr., May Syptimis Collinear Collinear Post, B. D.			Obstetrics, R. Newell Room 205	Gynaecology. L. Green Room 205	Sargery Case Teaching J. B. Blake
THURSDAY	Clinical Medicine Clinic Scars, B. C. II.	Clinical Surgery Clinical L. Burrell or Monks B. C. H.	Section Work.	Municip. Sanita. Durgin Room 207	Obstetries, L. Green Room 205	Laryngology Lecture Coolidge, Room 205	Otology Lecture C.J.Blake, Room 295
WEDNESDAY.	Neurology Clinic Putmam, M. G. II.	Dermatology Clinic Bowen, M. G. H.	Section	Psychiatry Cowles Room 201	Obstetries Conference Swain, Room 205	Gynaecology L. or R. Green, Room 205	Clinical Medicine Case Teaching Cabot Room 205
Tresday.	Clinical Medicine Clinic II. Jackson B. C. II	Clinical Surgery Clinical L. B. C. H.				Pediatries, L.& R. Rotch, Morse Room 205	Clinical Medicine Case Teaching Cabot Room 205
Monday.	Neurology Clinic Putnum, M. G. II.	Surgery, Clinic C.A.Porter M. G. H.		Municip. Sanita. Durgin Room 207	Obstetries. L. Green Room 205	Pediatrics. L. & R. Rotch, Morse Room 205	Feb., Mar. Cology Lecture C.J.Blake, May Laryngology Lecture Coolidge
	Exercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

DEGREES

On February 26, 1908, degrees were conferred as follows: --

M.D.

Frank Carr Carlton, s.B. 1903.

George Francis McIntire.

Boris Sidis, A.B. 1894, A.M. 1895, PH.D. 1897.

Horace Paine Stevens, A.B. 1903.

Leo Edward Welker, PH.B. (Iowa Coll.) 1903.

On Commencement Day, June 24, 1908, degrees were conferred as follows:—

M.D.

Harry Saul Bernstein, A.B. 1904.

Edward Joseph Black, PH.B. (Brown Univ.) 1904.

Earl Danford Bond, A.B. 1900.

Edward Dunn Brown, A.B. (Univ. of Pennsylvania) 1899

Heman Baker Chase, s.B. (Amherst Coll.) 1904.

Edward James Curran.

John Joseph Curtin, A.B. 1905.

Frederic Joseph Denning, A.B. 1905.

Martin Russ Edwards.

Samuel Chester Eveleth, A.B. (Amherst Coll.) 1904.

Henry Joseph FitzSimmons, A.B. 1903.

James Murry Gallison, A.B. (Brown Univ.) 1904.

Edward John Gray, s.B. (St. Joseph's Univ.) 1904.

Robert Granville Hall, s.B. 1905.

Isaac Hartshorne, A.B. (Amherst Coll.) 1904.

Charles Cheves Haskell, A.B. (Univ. of Virginia) 1905.

Thomas Patrick Hennelly, A.B. (Tufts Coll.) 1904.

Harold Waters Hersey, s.B. 1904.

Robert Dudley Hildreth, s.B. (Amherst Coll.) 1904.

Walter Garfield Hiltner, s.B. (Nebraska Univ.) 1904.

Francis James Hogan, A.B. (St. Francis Xavier's Coll.) 1902

Charles Albert Holbrook, A.B. 1900.

Delbert Linscott Jackson, s.B. (Dartmouth Coll.) 1904.

Francis Thomas Jantzen, A.B. 1905.

Henry Floyd Keever, A.B. 1905 (1904).

William Francis Lynch, A.B. (Georgetown Univ.) 1904.

Francis Joseph McCabe, A.B. (Dartmouth Coll.) 1905.

Eugene Ambrose McCarthy, A.B. (Brown Univ.) 1904.

Francis Henry McCrudden, s.B. (Mass. Inst. of Technology) 1900.

William McFarland, A.B. (Williams Coll.) 1904.

John Francis Maguire, A.B. (Boston Coll.) 1894.

William Leake Mann, Jr., PH.B. (Southwestern Univ.) 1903.

Arturo Fabio Manotas.

James Willis Johnson Marion, A.B. 1904.

Harry Foster Markolf, A.B. (Middlebury Coll.) 1904.

William Theodore Miller, Jr., A.B. (Western Reserve Univ.) 1905.

Fred Porter Moore, s.B. 1905.

George W Morse, Jr., A.B. 1904.

Raymond Augustine Quigley, s.B. (Mass. Agricultural Coll.) 1904.

Lucius Albert Salisbury, A.B. (Brown Univ.) 1904.

Edmund Houghton Sawyer, s.B. (Univ. of California) 1904.

William James Clyde Sharpe, A.B. 1904.

William Lamson Soule, A.B. (Colby Coll.) 1890, M.D. (Boston Univ. Medical School) 1896.

John Baker Swift, Jr., A.B. 1904.

Albert Seward Tenney, A.B. (Cornell Univ.) 1905.

Michael Aloysius Tighe, A.B. (Boston Coll.) 1903.

James Scott Tomkies, A.B. (Tulane Univ.) 1903.

William Claude Usher, A.M. (Queen's Univ.) 1905.

Edmund Francis Walsh, A.B. 1904.

Frederick Orra West, s.B. 1905.

Samuel Henry Wilkins, Jr., A.B. (Dartmouth Coll.) 1905.

Clarence Field Worthen, s.B. (Univ. of Vermont) 1903.

M.D. cum Laude

Howard Felix Adler, s.B. (Univ. of California) 1905.

Ernest Lazarus Booth, A.B. 1905 (1904).

Bertram Harrington Buxton, A.B. (Brown Univ.) 1904.

Arthur Hallam Crosbie, A.B. 1903.

Clarence Guy Lane, A.B. 1905.

Charles Henry Lawrence, Jr., A.B. 1903.

Henry Kovál Marks, A.B. (Leland Stanford Jr. Univ.) 1904.

Hyman Morrison, A.B. 1904.

Louis Harry Newburgh, A.B. 1905 (1904).

George Gilbert Smith, A.B. 1905.

Roland Lesley Toppan, A.B. 1904.

William Stewart Whittemore, A.B. 1904.

ADMISSION EXAMINATION.

June, 1908.

CHEMISTRY.

INORGANIC CHEMISTRY.

- 1. State the properties of the sulphates of potassium, lead, and silver.
- 2. Describe a process for the manufacture of sulphuric acid.
- 3. How much carbon di-oxide may be obtained from 5.14 grams of sodium carbonate? Na 23 $\,$ C 12 $\,$ O 16.
- 4. What is water of crystallization? How may its presence be shown?
- 5. What is the constitution of the atmosphere?

QUALITATIVE ANALYSIS.

- 6. How may chlorides, bromides, and iodides be distinguished?
- 7. How may barium, strontium, and calcium be distinguished?
- 8. Describe the test for ammonium salts.

ORGANIC CHEMISTRY.

- 9. Write the formulas of tartaric acid, ethyl acetate, acetylene, ethane, methyl alcohol.
- 10. What are fats? How may soaps be prepared from them?
- 11. How may ether be prepared?
- 12. What is kerosene?
- 13. What are the properties of the substance having the formula



EXAMINATION PAPERS.

(Annual Examinations, 1908.)

First Year Studies.

ANATOMY. - Professor Dwight.

- Describe the outer and the inner ends of the clavicle, giving their shape and chief features.
- 2. With what bones does the astragalus articulate? What important difference between the inner and outer aspects?
- 3. Describe the ligaments forming a part of the wall of the pelvis.
- 4. Describe the serratus magnus muscle.
- 5. Give the course of the internal carotid artery in the skull. What are its most important branches?
- 6. Describe the pyramidal tract from its origin to the lower border of the medulla oblongata.
- 7. From what nerve-roots is the obturator nerve formed? What does it supply?
- 8. Describe the corpus callosum.
- 9. What are the surfaces and the relations of the spleen?
- 10. Give the relations of the transverse part of the arch of the aorta.
- 11. How and where does the thoracic duct begin? Give its course.
- 12. Describe the mesentery of the jejuno-ileum.

HISTOLOGY AND EMBRYOLOGY. - Professor MINOT.

[Each student is given three sections to correspond with the first three questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

Questions 1, 2, 3, and 4 are for both Medical and Dental students.

- 1. What is the organ? From what part of the organ is the section taken? Draw and describe its layers. Draw in detail some of the nerve cells found in the organ, and state where they are situated.
 - 2. Draw and describe a few of the characteristic cells in the section.
 - 3. What is the organ? Describe its characteristic tissue.
- 4. Describe the course of the lymph and of the blood through a lymph gland. Note the relations of the vessels to the surrounding structures.
- 5. (For Medical students only.) Describe the development of the panereas.

6. (For Dental students only.)

(a) Show by a series of drawings the development of the enamel organ.

(b) Draw and describe the changes which take place in the dentine papilla from its first appearance to its condition in the completed tooth.

(c) Describe the alveolodental membrane.

PHYSIOLOGY. - Professor Cannon.

[Answer any five questions. Mention, where possible, experimental evidence in support of your statements.]

- 1. State five important differences between conduction in the nerve trunk and conduction in which the central nervous system is involved. Illustrate in each instance.
- 2. Discuss Weber's law of the relation between stimulus and sensation. Illustrate.
- 3. What happens in a blood pressure record when the depressor nerve is stimulated? When the peripheral end of the cut vagus nerve is stimulated? When the sciatic is stimulated? When amyl nitrite is breathed? When adrenalin is introduced into a vein? Explain each change.
- 4. Describe and explain the effects of respiration on arterial blood pressure. What agencies normally aid the heart in the circulation of the blood?
- 5. Give one theory of lymph formation and explain the action of one class of lymphagogues.
- 6. Discuss the correlation of gastric and intestinal digestion through the agency of the pyloric sphincter.

BIOLOGICAL CHEMISTRY .- Drs. Alsberg and Henderson.

1. What would be the physical and chemical properties and reactions of a substance having the formula

- 2. Compare the hydrolytic cleavages of proteins and fats. Explain the methods by which the processes may be studied.
- 3. Discuss the value of fats, carbohydrates, and proteins as sources of energy to the animal. What other substances may yield energy?
- 4. State the various factors involved in removal of carbonic acid from the body.
 - 5. What are nucleo proteins?
- 6. What fats occur in the animal? How may the presence of glycerine be demonstrated?
- 7. What is the origin of sulphuric acid and phosphoric acid in the arin ?

- 8. What chemical processes are involved in muscular contraction?
- 9. Discuss protein metabolism.
- 10. State the main facts concerning ammonia as a metabolism product. Describe the determination of ammonia in the urine.

Second Year Studies.

BACTERIOLOGY. - Professor Ernst.

- 1. What bacteria are commonly associated with pneumonia? Describe two of them.
- 2. Describe the infecting agent in typhoid fever.
- 3. What is meant by active and passive immunity?

PATHOLOGY. - Professor Councilman.

Write answers to questions 1 and 2 on separate paper which is provided.

- 1. Give the general anatomy and biology of a round worm and a tapeworm.
- (Some one species is to be described and not some composite. The student may choose the species.)
- 2. Describe the ways in which the intestinal parasites may injure their host and give specific illustrations.
- 3. Give the varieties of exudations which are found in inflammation. Give some of the factors which determine the character of an exudation. Describe specifically the pathological histology of the trachea in diphtheria.
- 4. What do you mean by fatty degeneration? How is it recognized? What are some of the common causes of fatty degeneration? What is amyloid? Where is it situated in the tissues?
- 5. Describe an infarction of the kidney. What are the changes leading to its production? How is repair of the infarcted area brought about?
- 6. What are the gross lesions which are associated with pathological conditions of the vascular system including the heart? Give the relation between these lesions and special pathological conditions of the blood vascular system.
- 7. In what different ways are tumors classified? Which basis of classification is the best and why?
- 8. Melanotic sarcoma. Where primary? From what cells do they originate? Shapes and arrangement of cells. Source and nature of pigment. In what mammal other than man are they of common occurrence?
- 9. Appendicitis. Describe the anatomical conditions which favor the occurrence of infection of the appendix; mention predisposing causes; describe the series of changes seen in acute appendicitis.
- 10. Name the chief histological features of anterior poliomyelitis, (a) acute stage; (b) end-result. What are the functional effects of destroying (1) the anterior horns of the spinal cord; (2) the pyramidal tracts?

HYGIENE. - Professor Harrington.

- 1. Define: Haemolysis; active acquired immunity; passive acquired immunity; natural immunity.
- 2. How does soil air differ in composition from atmospheric air? Of what diseases of man do the exciting causes reside in the soil?
- 3. To what is the discomfort of overcrowding attributable? How are fogs produced, and what influence have they, when long continued, on the health of large cities? How does the combustion of illuminating gas affect the air of confined spaces?
- 4. What is the significance of an abnormally high content of chlorine with appreciable amounts of free ammonia and nitrites in water?

To what is the corrosive property of water upon lead pipe due?

What diseases of man are spread through specifically polluted water?

5. Compare the proteid value of lean beef, wheat, milk, cheese, and potatoes.

What is the composition of average cow's milk?

What changes are produced in milk by boiling?

What are the characteristics of a milk-borne epidemic of one of the common communicable diseases?

6. What disinfectants are best suited to the sterilization of feces? sputum? sheets? woolen clothing?

What are the principal methods of sewage disposal?

7. How are birth-rates and death-rates calculated?

How is infantile mortality expressed?

Name in general terms the occupations which you would advise a person with an apparent tendency to tuberculosis to avoid. What classes of occupations would you advise for such?

8. What diseases are known to be spread by insects?

Mention the different ways in which typhoid fever is spread.

Third Year Studies.

MATERIA MEDICA AND THERAPEUTICS. - Professor Praff.

- 1. Action and uses of mercury.
- 2. Action and uses of potassium iodide.
- 3. Action and uses of thyroid gland.
- 4. Action and uses of pilocarpine.
- 5. Write prescriptions, avoiding abbreviations, for: (a) iron; (b) apomorphine; (c) digitalis; (d) ergot; (e) nitroglycerine; (f) morphine.
 - 6. General methods of treatment of kidney diseases.
 - 7. Action and uses of ammonia.
 - 8. Give a diet for a case of chronic diarrhoea.

THEORY AND PRACTICE. - Professor Fitz.

- 1. The significance in practice of the parathyroid glands.
- 2. Describe "Banti's" disease.

- The precautions to be taken to prevent the spreading of typhoid fever from the patient to other members of the household.
- 4. Discriminate between the Stokes-Adams' syndrome and the Cheyne-Stokes' phenomenon.
- 5. The relation between peripheral and visceral arterioselerosis.
- 6. The treatment of pneumothorax.

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- 7. Indications for the surgical treatment of gastric ulcer.
- The prognosis and treatment of jaundice according to its method of origin.
- 9. The diagnosis of acute inflammation of the omental bursa.
- 10. The diagnosis of disorders of renal function.

CLINICAL MEDICINE. — Professor SHATTUCK.

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive, though correct, diagnosis. Write out all prescriptions in full.]

Case 1.—A woman, 30 years old, is admitted to the Hospital April 3. Her family history and habits are good. She has had three healthy children after normal labor and no miscarriages. Her previous health has always been good. She is now at the beginning of the third month of pregnancy. Ever since this began she has had considerable nausea and has usually vomited two or three times a day. On April 1st she began to complain of headache, which continued into the next day, but did not prevent her doing her housework. Yesterday, while at the wash-tub, she was suddenly attacked by very sharp pain in her head and abdomen, which was soon followed by vomiting. The latter gave no relief, and two hours later she became unconscious.

The patient is in fair flesh, pallid, unconscious, skin hot and dry. The eyes are turned upward and to the left. The pupils react to light; the left is larger than the right. The tongue is dry and foul. The neck is held somewhat rigidly but there is no retraction and no tenderness. The heart is normal in size and position; its sounds are short, weak. Except for numerous moist rales at both bases the lungs are normal. Abdomen negative. Knee-jerks active, no Kernig, no Babinski. No paralyses of face or limbs could be determined. Temperature 102°, pulse 140, very weak, respirations 34. White cells number 17000. Physical examination is otherwise negative.

Eight ounces of urine were drawn by catheter. Sp. gr. 1036. Color, high, albumin $\frac{1}{4}\%$. Sugar, a trace; acctone, a slight trace. The sediment showed numerous fresh blood cells, and occasional small round cells and hyaline and fine granular casts.

Diagnosis? Prognosis? Treatment?

Case 2.—A large well-developed man of forty-two is seen Novem-

ber 12th, 1907, of good family history and habits, a head farmer. He had measles in childhood. He has been a very active and efficient man.

Until ten years ago, he was very athletic, excelling in various feats, which he then gave up, apparently because he was too busy with other things. He says that he first noticed shortness of breath on exertion last April. This has gradually increased, and he has been able to do less and less

About two weeks ago he came under treatment because he could not lie down at night, and could do very little on account of dyspnoea. There was slight swelling of the feet at the time and some cough, rales at the posterior bases. He was put to bed and given digitalis and nitro-glycerine with morphia at night. There was no albumin in the urine. After about

ten days his breathing became much easier.

November 10th he went into the bathroom, returned to his room, and in about twenty minutes both feet and legs half-way to the knees tingled and felt as if they were asleep. This soon gave way to pain, becoming very severe, equal on the two sides. The pain then left the right leg, but has persisted in the left. Both feet and legs are equally warm to the touch. Slight swelling over the left, none over the right shin. A purplish spot at the end of the right great toe. The outer aspect of the right leg half-way to the knee is anaesthetic to touch, no swelling of the joints. The posterior tibials and dorsalis pedis arteries cannot be felt on either side. wrist pulse is rather feeble, and does not correspond with the heart beat which is pretty irregular, both in force and rhythm. The cardiac apex is not localized to sight or touch. Percussion shows increased transverse diameter of the heart. No distinct murmur heard. The urine of vesterday is said to have contained a slight trace of albumin. No fever at any time. Lies with the head low; can lie on either side, and now makes no complaint of dyspnoea. Color is good.

Diagnosis? Prognosis? Treatment?

Case 3. — A clerk, 28 years old, is seen February 27th. Family history negative. Habits good. He was operated upon five weeks ago for appendicitis within twenty-four hours after its onset, and a sloughing appendix, which had not perforated, was removed. The wound required drainage. For the first five or six days his progress was satisfactory, and then nausea and vomiting set in. He was finally able to retain nothing by the mouth, and two weeks ago was put on rectal feeding with decided benefit. The nausea still persists, but he now takes a fair amount of liquid nourishment without vomiting. He has had no pain other than that incidental to the operation, and apart from the nausea he complains chiefly of exhaustion. The temperature has run a zig-zag course since the operation, but the swings have been greater during the past week, ranging from 98° to 104°. He has had occasional chills and profuse sweats. The patient is emaciated and prostrated, requiring help in turning. The skin is slightly yellow but the conjunctivae are clear. Cheeks flushed. Heart normal in size and position; no murmurs. Examination of left chest negative. Dulness in the right chest begins at the level of the fifth rib in the nipple line, and extends to the base. Its upper border is somewhat higher in the axilla than in front or behind, and descends somewhat on deep inspiration. Respiration can be heard and fremitus felt everywhere, but both diminish toward the base. There is some tenderness over the lower right ribs in the back.

The abdomen is somewhat distended and everywhere tympanitic. In the right iliac fossa is a linear scar about four inches long, showing a small superficial area which has not yet healed. Pressure over it produces no tenderness and reveals nothing abnormal beneath. The sharp smooth edge of the liver can be felt two inches below the costal margin. It is not tender. Pulse 135, small and weak. Respirations 30. Leucocytes number 28000. Urine negative. Physical examination otherwise not

noteworthy.

Diagnosis? Prognosis? Treatment?

PEDIATRICS. - Professor Rotch.

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case and give the differential diagnosis, and the treatment:—

A girl, $3\frac{1}{2}$ years old, had always been well except that she had had chicken pox a year previously. She began to have a slight fever on the afternoon of March 9th. When seen in the evening by her physician, the temperature was 100.5° F. She complained of a little pain in the left wrist, but nothing could be made out on physical examination. The temperature was 102.5° F. On the morning of the 10th, the wrist was very painful and there was some tenderness on pressure, but no swelling or heat. The temperature gradually rose, and the pain in the wrist and forearm increased. She became delirious, the morning of the 11th, and was seen in the late afternoon. There had been no chills or vomiting. She had taken very little food. The bowels had been moved by a cathartic.

Physical Examination. — She was well developed and nourished. Her color was good. She was actively delirious, but could be made to answer sensibly. There was no rigidity of the neck. The pupils were small and equal, but did not react to light. The tongue was moderately coated, but was protruded in the median line. The heart and lungs showed nothing abnormal. The abdomen was negative. The liver and spleen were not The extremities showed nothing abnormal except the left arm. There was no spasm or paralysis. Kernig's sign was absent. The kneejerks were equal and normal. There was considerable swelling about the upper two-thirds of the left forearm, with a very little about the elbow joint and in the lower portion of the upper arm. There was moderate tenderness over the upper forearm, especially about the radius. This swelling seemed to be deep and not superficial. There was some heat, but no redness. The motions of the wrist were free, but were slightly limited at the elbow. There was no evidence of effusion into the elbow joint. There was no enlargement of the axillary lymph nodes. The temperature was 104° F., the pulse 160.

The white blood count was 32,000.

- 2. Give the initial treatment of a case of infectious diarrhoea of the type in which the movements contain mucus and blood.
 - 3. Compare the chemical analysis of cow's milk with human milk.
 - 4. What complications are likely to occur in an attack of measles?
- 5. What possibilities would you consider in the case of a child suffering from an acute infectious disease, the routine physical examination on the fourth day being negative?
- 6. A child is taken with a sudden attack of vomiting, complains of sore throat, and on examination the throat is found to be slightly red, the lymph nodes are enlarged, the tongue is coated, and the papillac can be seen through the coating. There is no rash to be seen on the body. What provisional diagnosis would you make?

SURGERY. - Professor Burrell.

 Give the pathological anatomy and treatment of congenital clubfoot.

- 2. The causes and symptoms of intra-abdominal hemorrhage.
- 3. The treatment of acute intestinal obstruction.
- 4. The symptoms of pyloric obstruction.
- 5. Enumerate the classical signs of a fracture.
- 6. Describe the reduction of a subcoracoid dislocation of the humerus.
- 7. Give the differential diagnosis of a femoral hernia.
- 8. The symptoms and treatment of a fissure of the anus.
- 9. What is a cirsoid aneurism?
- 10. Diagnosis and treatment of a pre-patella bursitis.

CLINICAL SURGERY. - Professor Richardson.

1. Miss K. S., aged 18, began about four months ago to have abdominal pain. Since that time she has had in all five or six attacks. The last attack began three days ago, at 11.30 r.m., waking her from a sound sleep. The pain came on suddenly, and was severe and sharp. It was felt in the epigastrium, and radiated to both sides and to the right shoulder-blade. It doubled her up, so that she could not lie down. When she bent forward the pain was somewhat relieved. She was nauseated, but did not vomit. Her physician saw her seven hours later, when she was having paroxysms of pain, each lasting about five minutes, with a remission of about the same duration. The temperature was normal; the pulse 78. Morphia gr. \$\frac{3}{8}\$ by mouth gave no relief. \$\frac{1}{4}\$ gr. morphia given subcutaneously stopped all pain. This morning there was a mild attack of similar pain. In previous attacks there has been no jaundice. Between these attacks the patient has felt fairly well. At first the attacks lasted from one to two hours. Nothing abnormal has ever been found in the stools.

The patient has had no serious illnesses, and the family history is good. Physical Examination. — The patient's general condition is excellent. The cheeks are full of color, and she is typical of splendid and robust health. She is well developed and well nourished — in fact, rather stout. There is tenderness on deep pressure all over the epigastrium, but nothing abnormal can be felt. The skin is distinctly jaundiced; the conjunctivae are yellow. There is bile in the urine, which is in other respects normal. The stools are light colored and contain no bile. The heart and lungs are normal.

normar.

Discuss, as fully as time permits, the diagnosis and the prognosis; the indications for treatment and the contra-indications.

What would you advise in such a case?

If you advise operation, what will you say to the patient or to her friends as to its dangers and its probable results?

What will you say if you advise against operation?

2. A woman of 35, in the fall of 1906, had been under care of an osteopathic physician, who treated her for pain in the neck and spine. During this treatment a nodule appeared in the left breast. The patient showed this bunch to a woman who promised to absorb it. The family physician saw the breast for the first time in October, 1907. The whole breast was then infiltrated and hard, and the nipple was retracted. The left axiila contained many enlarged lymph nodes. During the summer of 1907 the patient went to the mountains on account of pain in the left hip

and in the back of the neck, which was supposed to be rheumatism, and which was so severe as to prevent her walking much. At this time she was seen by one of the Visiting Surgeons of the Massachusetts General Hospital, who declined to operate. The pain in the back increased, till the patient could not move without feeling it. The infiltration in the breast slowly increased. On cross-examination it appeared that she came of a strong and healthy family, and had never had any serious illness. She had never been pregnant, nor had she ever injured the breast. The bunch first appeared as a small nodule, and was treated by the osteopath by manipulation of the left arm.

On account of some thoracic symptoms, an eminent physician of the Massachusetts General Hospital was called to examine the heart and lungs.

He raised some question as to a pleurisy with effusion.

In the course of the winter the condition of the breast grew slowly worse. On March 9, 1908, the attending physician called a second surgeon for an independent opinion. At this time the whole left breast was found to be infiltrated beyond its margin. The left axilla contained a few enlarged lymph-glands. Nothing abnormal was found in the thorax. The knee-jerks were lively. There was clonus in the right ankle.

The surgeon was anxious in this distressing case to interpose an operation. The patient had been recently and happily married, and had everything to live for. The tumor was within the possible limits of easy extirpation, though it would not be possible to cover in the wound with

skin.

6.

There was some doubt, in the opinion of an expert of the highest skill,

about metastasis in the lungs.

On the following day (March 10) an expert in neurology saw the patient. In his opinion there was a metastasis pressing upon the spinal cord, but there was no absolute proof of this.

What would you have advised in this case? Give your reasons.

OBSTETRICS. -- Professor Green.

- 1. What changes normally take place in the foetal circulation after the cessation of the placental circulation at birth? What is the clinical evidence of a failure of these changes to take place?
- 2. Outline the several procedures by which a diagnosis of breech presentation is made. What are the sources of error in the vaginal examination? What is the foetal mortality in breech delivery?
- 3. How may one make during labor a presumptive diagnosis of abnormal shortness of the funis? What may be the results of this anomaly to mother and child? What treatment is indicated?
- 4. Make the differential diagnosis between tubal pregnancy, hydatidiform mole, and impending miscarriage in a normal pregnancy.
- 5. What are the legitimate general indications for therapeutic abortion? Mention specific conditions under the respective indications, in the presence of which the induction of abortion is justifiable.
- 6. In what ways may fistulae between the bladder and the genital tract result from parturition? How may a consultant determine in any case the cause of a vesico-vaginal fistula?

- 7. State briefly the normal mechanism of labor in O.D.P. position of head presentation. What factors are essential to this mechanism? In the absence of these factors, by what measures may the normal mechanism be promoted?
- 8. What are the two chief types of pelvic contraction? In the minor degrees of these two types, in which delivery takes place without instrumentation, in what way is the type of contraction shown by the mechanism of labor?
- 9. In what ways may breast abscess be caused during lactation, other than by infection through the nipple?
- 10. What are the most frequent causes of fever in the puerperium, other than infections of the genital tract? In what ways may the day of the invasion and the character of the temperature chart assist in the differential diagnosis?

GYNAECOLOGY. - Professor Green.

- 1. Pruritus vulvae: aetiology and treatment?
- 2. Compare the methods of invasion of the genital tract by the streptococcus and the gonococcus respectively. Compare the natural defenses against these organisms, and the ultimate results to life and health.
- 3. Non-tubercular pelvic inflammation in acute and chronic types: symptoms; diagnosis; medical and non-surgical treatment?
- 4. Non-adherent retroversion of the uterus: methods of replacement, and of retention in normal position?
- 5. Give the regional classification of myoma of the corpus uteri. What are the chief symptoms, and how do the symptoms vary according to the classification of the myoma? How are pregnancy and parturition affected according to the seat of the tumor?

DERMATOLOGY .- Professor Bowen.

- 1. Erythema multiforme.
- 2. Enumerate and describe the four well recognized forms of cutaneous tuberculosis.
- 3. Give specific directions for the treatment of a family of five who have all contracted scabies.
 - 4. Herpes Zoster.
 - 5. The different forms of alopecia and their treatment.

SYPHILIS. - Asst. Professor Post.

- 1. What are the points in the diagnosis of chancre of the genitals? What other lesions must be considered?
- What circumstances would arouse suspicion of inherited syphilis in a half-grown child?
- 3. Give the applications of Potassic Iodide; its dosage and its disadvantages.

NEUROLOGY. - Professor PUTNAM.

- 1. (a) What is the Argyll-Robertson pupil? In what diseases does it occur?
 - (b) Result of complete paralysis of third nerve on one side?
 (c) Location of lesion producing hemianopsia? (Diagram.)

2. Condition of knee-jerk in :-

(a) Polyneuritis.

(b) Cerebral apoplexy.

(c) Ataxic paraplegia (early stage).

(d) Poliomyelitis, involving the arms alone.

(e) Myelitis (transverse).

3. Is sensibility disturbed, and why (answer briefly), in:-

(a) Neuritis?

(b) Tabes dorsalis?(c) Syringomyelia?

(d) Amyotrophic lateral sclerosis?

(e) Cerebral apoplexy from capsular lesion?

4. What is the essential nature of hysteria? Illustrate by examples.

PSYCHIATRY. - Dr. Cowles.

- 1. Describe briefly the reflex arc: its constituent parts, and the process of conduction; and mention some of the symptoms that may indicate a difference of level of the receptive and effective thresholds.
- 2. How may certain symptoms of the melancholia-mania group of psychoses be explained by reduction of the inhibitory forces?
- 3. What are the chief differential characteristics of the melancholiamania and the dementia praecox groups of psychoses?
- 4. Case.—A woman, age 25; married; housewife; born in Ireland; father intemperate, mother is insane; educated in public schools and Convent; has two children, the youngest four months old; habits good; no serious illnesses. First attack of insanity. Physician's certificate for commitment to hospital: Patient has been depressed and excited since birth of baby four months ago; spends much time in praying; does not eat; will not try to have movements of the bowels, nor in last few hours, to pass urine; fearful of death. Her expression and manner indicate mental depression.

Admitted to Boston Insane Hospital October 19, 1907. The records show that the physical examination was negative; well developed and appeared well nourished. On admission much excited; refused to enter the door and was carried in and laid on a bed. After a few minutes she relaxed and asked for a warm drink; then became friendly and confidential; no hallucinations nor delusions except thinking she was about to die.

October 20, 1907, she became excited and was taken to the excited ward. The next morning she was pleasant, admitting that she was foolish to get excited, but still the idea that she is to die hangs over her like a cloud. She is well oriented; talks rationally on every topic except her impending death. Worries lest her mother will find out where she is.

October 23, 1907. Has been quiet since last note though excited the day before; has strong delusions of impending calamity and becomes emotional when reference is made to it.

November 21, 1907. The patient is quiet, depressed, shows psychomotor retardation, reticent and can not be led into any extended conversation. Her answers to questions are retarded and often there is no answer. Consciousness apparently not clouded and orientation probably good. Later, on this date, the condition as above described was noted in a special examination. Some of the points of interest were reported as follows: To the examiner the patient appeared to be in a very good physical condition, but her depression was very marked. When asked how she was feeling, she did not reply. ("Do you feel well?") After some delay she answered "No." There was like delay in answering other questions. On taking her hand she did not resist. Later, when asked to give her hand, after a little time she did so. When reference was made to her baby her face immediately flushed and her eyes filled with tears. She could not be led to say anything more. When she was to be taken back to the ward she at first refused, saying "I do not want to go there." Being asked if she would like to go home she made no answer. Her gait was very slow. There has been no sufficient evidence of automatism, katotonic attitudes, negativism, or mutism.

Give diagnosis, an analysis of the symptom-complex, and prognosis.

OPHTHALMOLOGY. - Asst. Professor Standish.

- 1. Iritis. Etiology; clinical history; and treatment.
- 2. What diseases cause night blindness?
- 3. Phlyctenular conjunctivitis. Description and treatment.
- 4. Sympathetic ophthalmitis.
- 5. Convergent strabismus. Varieties; treatment.

OTOLOGY. - Professor BLAKE.

- 1. Describe the structure of the drum head.
- 2. Give the functions of the intra-tympanic muscles.
- 3. Give the symptoms, objective and subjective, of prolonged closure of the tympano-pharyngeal tube.
- 4. Give the pathologic sequence in acute suppurative disease of the middle ear.
 - 5. Give the symptoms of acute involvment of the mastoid.
- 6. In suppurative invasion of the labyrinth what symptoms indicate implication of the semicircular canals.

LARYNGOLOGY. — Asst. Professor Coolidge.

- 1. The causes and treatment of recurrent epistaxis.
- 2. Describe atrophic rhinitis.
- 3. What is the grouping of the anterior ethmoid cells.
- 4. The etiology, prognosis and treatment of peritonsillar abscess.
- 5. In what way may systemic infection occur through the lymphoid ring of the fauces.
- 6. The diseases which cause chronic ulceration of the larynx, and their differential diagnosis.

THE MEDICAL SCHOOL

Courses for Graduates

1907-08*

Aldrich, Walter Johnson, M.D. (Bellevue Hospital Medical Coll.) 1893, St. Johnsbury, Vt. Ballance, Charles, M.D. (Coll. of Phys. and Surg., Chicago) 1906, Tacoma, Wash. Barber, George Holcomb, s.B. (Boston Univ.) 1885, M.D. (Columbia Univ.) 1888, Chelsea. Beck, Horace Palmer, M.D. (Univ. of Pennsylvania) 1897, D.D.S. (ibid.) 1898, Newport, R. I. Belknap, James Lyman, s.B. (Dartmouth Coll.) 1898, M.D. (Harvard Med. Sch.) 1902, Washington, D. C. Bommarito, Paolo, M.D. (Univ. of Palermo) 1884, Boston. Brainerd, John Bliss, M.D. 1884, Boston. Brown, Herbert Rutherford, s.B. (Univ. of Roch-Jamaica Plain. Campbell, Franklin Edward, M.D. 1902, Manchester, N. H. Carey, Francis Arthur, M.D. (Baltimore Med. Taurton. Coll.) 1905, Carvill, Lizzie Maud, A.B. (Tufts Coll.) 1899, M.D. (ibid.) 1905, Somerville. Cheever, Nathaniel Fremont, M.D. (Univ. of Vermont) 1883, Greenfield, N. H. Chipman, Harry Edgar Harrison, Boston. Clark, William Irving, Jr., A.B. (Columbia Univ.) 1900, M.D. (ibid.) 1904, Worcester. Cunningham, Thomas Edward, M.D. 1876, Cambridge. Curry, Edmund Farnham, M.D. 1896, Fall River. DeLue, Frederick Spaulding, M.D. 1894, Needham. DeNormandie, Robert Laurent, A.B. 1898, M.D. Boston.

Doull, Arthur Ernest, M.D.C.M. (McGill Univ.)

1900,

Stoneham.

^{*} Entering after the issue of the Catalogue of 1907-08.

Emerson, Charles Sumner, M.D. (Univ. of the City of New York) 1886,

French, William Joseph, M.D. (George Washington Univ.) 1905,

Grant, Dick, s.B. 1897,

Gillies, George Ernest, M.D., C.M. (McGill Univ.) 1906.

Jackson, Oliver Howard, M.D. (Long Island Coll. Hosp.) 1894,

Jacobson, Edmund,

Kennison, Frederick Marshman, M.D. (Tufts Med. Sch.) 1905,

Ladd, Ira Bourlande, M.D. (Cooper Med. Coll.) 1896,

Lothrop, Oliver Ames, A.B. 1903,

Luhr, Alfred Francis, M.D. (Jefferson Med. Coll.)

McCarthy, Thomas Horatio, M.D. 1890,

MacLeod, Norman Murray, A.B. 1902, M.D. 1905,

MacPherson, Warren, s.B. 1907, A.M. 1908, Nowlin, John Burton, M.D. (Coll. of Phys. and Surg., Baltimore) 1896,

O'Connor, John Christopher, s.B. (Dartmouth Coll.) 1902, M.D. (Med. Sch. of Maine) 1905,

Pratt, Frederick Haven, A.M. 1898, M.D. 1906, Ramstad, Niles Oliver, M.D. (Univ. of Minnesota)

1899, Richardson, Russell, A.B. (Princeton Univ.) 1904, Rushmore, Stephen, A.B. (Amherst Coll.) 1897,

M.D. (Johns Hopkins Med. Sch.) 1902, Shiley, George Francis, M.D. (Coll. of Medicine, Univ. of Iowa) 1903,

Spencer, John Blair, A.B. (William and Mary Coll.) 1900, M.D. (Univ. Coll. of Med., Va.)

Stanwood, Frederic Arthur, A.B. (Bowdoin Coll.) 1902, M.D. (Harvard Med. Sch.) 1907,

Sweeney, John Walter, M.D. (Yale Med. Sch.) 1907, New Haven, Conn. Tenney, Elmer Seth, B.L. (Dartmouth Coll.) 1894, M.D. (ibid.) 1897,

Toulon, Alfred Joseph, M.D. (Medico-Chirurgical Coll., Phila.) 1906,

Walker, Ernest Linwood, B.A.S. 1896, S.B. 1903, s.D. 1907,

Watertown.

Washington, D. C. St. Mary's, Canada.

Teeswater, Canada.

Fall River. Chicago, Ill.

Dorchester.

Stockton, Cal. Boston.

St. Marys, Pa. Brockton. Newport, R. I. Bridgeton, N. J.

Buckingham, Va.

Bradford. Worcester.

Bismarck, No. Dak. Brookline.

Boston.

Missouri Valley, Ia.

Williamsburg, Va.

Wellesley.

Boston.

Philadelphia, Pa.

Jamaica Plain.

Walker, John James, A.B. (McGill Univ.) 1902, M.D., C.M. (ibid.) 1906,

Ormstown, Canada.

Wilcox, Henry Williams, M.D. (Univ. of Colorado) 1897,

Denver, Colo.

Williams, David Lawrence, A.B. (Boston Coll.) 1907, M.D. (Tufts Med. Sch.) 1906,

Boston.

1908-09

Aiken, Thomas Francis, M.D. (Univ. of Pennsylvania) 1894,

Boston.

Arnold, Douglas Perkins, M.D.(Univ. of Buffalo) 1908,

Buffalo, N.Y.

Baker, Roscoe Chase, A.B. (Yale Univ.) 1900, M.D. (Denver and Gross Med. Sch.) 1907,

Billerica.

Beach, Sylvester Judd, A.B. 1901, M.D. 1905,

Augusta, Me.

Beck, Clyde McKay, ph.c. (Univ. of the South) 1906, M.D. (Coll. of Phys. and Surg., Memphis) 1908,

Memphis, Tenn.

Berry, William Christopher, M.D. (Tufts Med. Sch.) 1907,

Charlestown.

Bostock, Gertrude Dorman, B.S. (Glasgow Univ.) 1900, M.B.CH.B. (ibid.) 1903,

Boston.

Brooks, Fletcher Hastings, s.B. (Trinity Coll., N.C.) 1896, M.D. (Baltimore Med. Coll.) 1902,

Baltimore, Md.

Callahan, John Francis, M.D. (Tufts Med. Sch.) 1906, Carboni, Giovanni, M.D. (Univ. of Naples) 1892,

Brockton.
Boston.

Cook, Edward Chase, M.D. (Med. Sch. of Maine) 1894,

York Village, Me.

Courtney, Angelia Martha, A.B. (Radcliffe Coll.) 1906,

Concord.

Darling, Byron Clary, A.B. (Illinois Coll.) 1898, M.D. (Harvard Med. Sch.) 1903,

New York, N.Y.

Derby, Frederick William, M.D. (Tufts Med. Sch.) 1905,

Arlington.

Farmer, Chester Jefferson,

Andover.

Faxon, Nathaniel Wales, A.B. 1902, M.D. 1905, FitzGerald, John Gerald, M.B. (Toronto Univ.) Stoughton.

Garrett, Frank Steele, m.D. (Baltimore Med. Coll.) 1898,

Toronto, Can.

Grant, William Herbert, M.D. 1896,

Chelsea.

Boston.

Guild, Frederick Washburn,

Halterman, Charles Warner, M.D. (Eclectic Med. Institute, Cincinnati) 1889,

Jee, Shin Fwe Pond Mooar, M.D. (Univ. of California) 1908,

Jordan, William Henry, M.D. (Maryland Med. Coll.) 1901,

Kober, Philip Adolph,

Little, Stillman David, M.D. (Bowdoin Med. Sch.) 1903,

Long, Alfred Dow, M.D. 1907,

McEvoy, George Albert, M.D. 1899,

McFee, William David, M.D. (Univ. of Vermont) 1897,

Mahoney, Stephen Andrew, A.B. (Holy Cross Coll.) 1885, M.D. (Harvard Med. Sch.) 1889, Manrique, Francisco Jil,

Morrison, John Sheppard, M.D. (Med. Coll. of Ohio) 1897,

Myers, Samuel William, M.D. 1902,

Pettibone, Chauncey J. Vallette, s.B. (*Univ. of Chicago*) 1907,

Riemer, Hugo Bruno Carl, A.B. (Bucknell Univ.) 1906, M.D. (Harvard Med. Sch.) 1904,

Sears, Frederic William, M.D. (Univ. of Vermont) 1888,

Sheldon, William Hills, M.D. (Cornell Univ. Med. Sch.) 1906,

Sturtevant, Charles Alton, m.d. (Boston Univ. Sch. of Med.) 1899,

Talbot, Fritz Bradley, A.B. 1900, M.D. 1905,

Washburn, Chester Angus, M.D. (Hahnemann Med. Coll.) 1908,

Young, Tilden Hendricks, M.D. (Tulane Univ.) 1903,

FOURTH CLASS

Almy, Thomas, A.B. 1905, Bowditch, Harold, A.B. 1905,

Brigham, Francis Gorham, s.B. (Colgate Univ.) 1905,

Burns, Newell Bly, A.B. 1905,

Roslindale.

Clarksbury, W. Va.

San Francisco, Cal.

Providence, R. I. Freedom, Pa.

Caribou, Me.
Berkeley, Cal.
Roxbury.

Haverhill.

Holyoke.
Bogota, Colombia, S.A.

Lafayette, Ind. Boston.

Evanston, Ill.

Norwood.

So. Hero, Vt.

New York, N.Y.

Manchester, N.H. Boston.

Everett.

Bedford, Ala.

Fall River. Jamaica Plain.

Flushing, N.Y. Danvers.

Cornish, Solon Washington, A.B. (Dartmouth Coll.) 1905, Boston. Crothers, Bronson, A.B. 1905, Cambridge. Crowley, Thomas Francis, A.B. (Boston Coll.) 1903, Holliston. Davis, Nelson Clifton, s.B. 1905, Providence, R.I. Dennen, Ralph Waite, A.B. 1905, Waltham. Fitz, Reginald, A.B. 1906, Boston. Fox, Michael Bernard, A.B. (Clark Univ.) 1905, Worcester. Garfield, Walter Thompson, s.B. 1906, Cambridge. Ghoreyeb, Albert Alphonso Wood, A.B. (Syrian Protestant Coll.) 1904, Jaffa, Syria. Greeley, Hugh Payne, A.B. 1906, Cambridge. Hall, Reverdy Morriss, Jr., A.B. 1905, Baltimore, Md. Healey, John Joseph, PH.B. (Brown Univ.) 1905, Providence, R.I. Hendricks, Henning Vitalis, s.B. (Worcester Polytechnic Inst.) 1903, Holden. Hepburn, James Joseph, A.B. 1906, Somerville. Hermann, Otto John, A.B. 1906, Roxbury. Hinds, Robert Watson, A.B. 1905, Allston. Howard, Arthur Allison, Ph.B. (Brown Univ.) Dorchester. Hunt, Roscoe Cadwell, A.B. (Carleton Coll.) 1905, Blue Earth, Minn. Kennedy, Philip Thomas, A.B. (Trinity Coll.) Hartford, Conn. Kilgore, Eugene Sterling, s.B. (Univ. of Cali-Fruitvale, Cal. fornia) 1904, Lamson, Paul Dudley, A.B. 1905, Worcester. Laskey, Edward Philip, s.B. (Dartmouth Coll.) 1904, Dover, N.H. Lyons, George Aloysius, A.B. (Boston Coll.) 1905, Winchester. McKenna, Edward Francis, A.B. (Brown Univ.) Providence, R.I. 1905, MacMillan, Andrew Louis, Jr., A.B. (Dartmouth Coll.) 1905, Hanover.

Worcester.

W. Newton.

Neill, Mather Humphrey, A.B. (Amherst Coll.) Pittsfield. Cambridge. Revere.

Macomber, Donald, A.B. 1906,

Noonan, William Andrew, A.B. 1906,

O'Keeffe, James Vincent, A.B. 1905,

Pharm.) 1903,

1905,

*Madden, John Joseph, PHARM.D. (Mass. Coll. of

^{*} Admitted by special vote of the Administrative Board.

Overlander, John Eliot, Ph.B. (Yale Univ.) 1905, Parker, Willard Stephen, A.B. 1906,

Patch, Arthur Lionel, A.B. (*Brown Univ.*) 1904, Pemberton, Frank Arthur, s.B. 1906,

Power, George Aloysius, A.B. (Holy Cross Coll.) 1905,

Pratt, Horatio Whittemore, s.B. 1905,

Preble, William Emerson, A.B. (Bowdoin Coll.) 1898,

Reid, William Duncan, A.B. 1906,

Rounseville, Wilfred Ellsworth, s.B. (Amherst Coll.) 1905,

Sampson, Edwin Field, s.B. 1906,

Smith, Harold Heber, A.B. (Leland Stanford Jr. Univ.) 1905,

Smyth, Duncan Campbell, A.B. (St. Francis Xavier's Coll.) 1905,

Steinharter, Edgar Clifford, s.B. (Mass. Inst. of Tech.) 1906,

Swaim, Loring Tiffany, A.B. 1905,

Titus, Raymond Stanton, A.B. 1905,

Webster, Harrison Briggs, A.B. 1905,

Wilkiemeyer, Frederick Joseph, A.B. (Christian Brothers' Coll.) 1904,

Young, Edward Lorraine, Jr., A.B. 1906,

Hiawatha, Kan.

Piqua, O.

Stoneham.
Boston.

Worcester.
Grafton.

Litchfield, Me.

Newton.

Attleboro. Newtonville.

Worcester.

Port Hood, N.S.

Cincinnati, O.

Cambridge.
No. Haverhill, N.H.

Newport, Ky.
No. Hanover.

Cohasset.

THIRD CLASS

*Austin, Richard Sisson,

Balcom, Kenneth Ira, A.B. (Colgate Univ.) 1905,

Barkan, Hans, A.B. (Leland Stanford Jr. Univ.) 1905,

Bortree, Leo Williams, A.B. (Colorado Coll.) 1906.

Bowers, George Francis Haskell, A.B. 1906,

Brayton, Howard Wheaton, Ph.B. (Brown Univ.) 1906,

Burgess, Alexander Manlius, A.B. (*Brown Univ.*) 1906.

Burwell, Edmund Strudwick, Ph.B. (*Univ. of No. Carolina*) 1906,

Chase, Peter Pineo, PH.B. (Brown Univ.) 1906,

Providence, R.I.
Northboro.

San Francisco, Cal.

Colorado Springs, Colo. Clinton.

Providence, R.I.

Portland, Me.

Charlotte, N.C.

Hyannis.

* Admitted by special vote of the Administrative Board.

*Clarke, Harry Carver,

Clarke, Oliver Holman, A.B. (Leland Stanford Jr. Univ.) 1906,

Corcoran, George Bartlett, A.B. (Brown Univ.) 1906,

Cring, George V, s.B. (Eartham Coll.) 1906, A.B. (Univ. of Michigan) 1908,

Cunningham, Thomas Edward, Jr., A.B. 1906,

Cutler, George David, s.B. 1907,

Dages, Oren Newton, A.B. (Princeton Univ.) 1906,

Dane, Charles Murphy, A.B. 1906,

Dane, John Murphy, s.B. 1907,

Day, Alexander Alfred, A.B. (Clark Univ.) 1906,

Draper, Warren Fales, A.B. (Amherst Coll.) 1906,

Dunlap, Albert Menzo, A.B. (Univ. of Illinois) 1906.

Faison, Yates Wellington, A.B. (Davidson Coll.)

Finney, Royal Houghtelin, A.B. (Kansas Univ.) 1907,

Forbes, Alexander, A.B. 1904, A.M. 1905,

French, Ralph Winward, A.B. 1907,

Gaboury, George Napoleon, A.B. (Yale Univ.) 1907.

Gamble, James Lander, A.B. (Leland Stanford Jr. Univ.) 1906,

Gardner, Edwin Daniels, A.B. 1906,

Gerber, Isaac, A.B. 1907,

Grady, James Edward, Jr., A.B. (Holy Cross Coll.) 1906,

Haigh, Gilbert William, A.B. 1907,

Hamilton, Burton Everett, A.B. 1907,

Harrington, Amos Thomson, A.B. (Yale Univ.)

1894, s.T.B. (ibid.) 1897,

Hegarty, Joseph Gordon, A.B. 1907,

Hellmann, Robert Richard, A.B. 1906,

*Heydemann, Martin,

Howes, Frank Miller, A.B. 1907,

Hurley, Daniel Joseph, A.B. 1905,

Boston.

Boston.

W. Springfield.

Portland, Ind.

Cambridge. Brighton.

Columbus, O.
Brookline.
Brookline.

Everett.

Newton Highlands.

Savoy, Ill.

Charlotte, N.C.

La Junta, Colo.

Milton.

Fall River.

Chicopee Falls.

Palo Alto, Cal.

Holliston.

Malden.

Clinton.

Lawrence.

Roxbury.

Jamaica Plain.

Somerville.

Cincinnati, O.

Boston.

Rockland.

Charlestown.

^{*} Admitted by special vote of the Administrative Board.

Irving, Frederick Carpenter, A.B. 1906, Jacques, Hector, A.B. (Laval Univ.) 1899, Kelley, Clarence Moore, A.B. 1906, Kellogg, Foster Standish, A.B. 1906, Leonard, Ralph Davis, A.B. 1907, Libby, Harold, A.B. 1907, Lightbody, William Russell, Ph.B. (Brown Univ.) 1906, *Lippman, Caro Wolf, MacAusland, Andrew Roy, s.B. 1907,

McCarty, James Joseph, Jr., A.B. 1907, McCrossan, Charles Leo, A.B. 1907.

Madden, Leon Irving, A.B. (Clark Univ.) 1905, Mahoney, Matthew Patrick, A.B. (Georgetown Univ.) 1906,

*Manton, Walter Williamson,

Marble, Henry Chase, A.B. (Clark Univ.) 1906, Meader, Charles Nash, A.B. (Colby Coll.) 1906,

*Millard, Jean Sears,

Miller, Richard Henry, A.B. 1905, Moore, George Albert, s.B. 1907,

Palmer, Walter Walker, s.B. (Amherst Coll.) 1905,

Parcher, George, A.B. (Bowdoin Coll.) 1908, Phillips, Charles Lewis, A.B. (Bates Coll.) 1906,

*Popoff, Constantine,

Porter, Emery Moulton, PH.B. (Brown Univ.) 1906.

Ryder, Charles Tripp, A.B. 1906, Shedd, George Harold, A.B. 1905,

*Sheppard, Philip Albert Edward, Stellenbosch, Cape Town, So. Africa. Sparrow, Charles Atsatt, A.B. (Amherst Coll.) 1906.

Tarleton, Leeson Oren, PH.B. (Brown Univ.)

Terrell, Alexander Bismarck, s.B. (Univ. of Chicago) 1907,

Tron, Stanley Emanuel (Royal Liceo Gioberti, Turin, Italy) 1903,

*Twombly, James Woodbury,

Walsh, John Gormley, A.B. (Brown Univ.) 1906,

Ogdensburg, N.Y. St. Hyacinthe, Can. Milton. N. II. Boston. Melrose. Roxbury.

Manchester, N. H. San Francisco, Cal. Taunton. Lowell. Somerville. Agawam.

Lowell. Detroit, Mich. Worcester. Waterville. Brookline. Fitchburg. No. Monroe, N.H.

Southfield. Ellsworth, Me. Lewiston, Me. Sliven, Bulgaria.

Andover. No. Conway, N.H.

Boston.

Mattapoisett. Concord, N.H.

Fort Worth, Tex.

Turin, Italy. Boston. Providence, R.I.

^{*} Admitted by special vote of the Administrative Board.

SECOND CLASS

Abbott, John Woodward, A.B. (Bates Coll.) 1905,

Achorn, Kendall Lincoln, s.B. 1903,

Bacher, Johann Adolph, A.B. (Leland Stanford Jr. Univ.) 1899,

Bagg, Edward Parsons, Jr., A.B. (Yale Univ.)

Bean, Charles Franklin Kingsbury, A.B. (Tufts Coll.) 1907,

Birnie, Richard, Jr., s.B. 1907,

Blaisdell, John Harper, A.B. (Dartmouth Coll.) 1907,

Breslin, John George, A.B. 1908,

Briggs, Asa Sheldon, Ph.B. (Brown Univ.) 1907,

Brown, Harold Learned, A.B. (Brown Univ.) 1907.

*Bruce, Jacob Baldwin, Jr.

Buckley, George Ambrose, A.B. (Brown Univ.)

Cahill, Harry Philip, A.B. (Holy Cross Coll.) 1907,

Chandler, Harold Beckles, A.B. (Bowdoin Coll.)

Chickering, Henry Thorndyke, A.B. 1907,

*Christian, Andreas Forest,

Clark, Frank Robinson, A.B. (Wesleyan Univ.) 1900,

Clark, William Arthur, A.M. (Univ. of Illinois)

Clymer, George, A.B. 1905,

Cochrane, Robert Carlyle, s.B. (Dartmouth Coll.) 1907,

Cogswell, Eliot Sanborn, A.B. (Dartmouth Coll.) 1906,

Collins, Joseph Daniel, s.B. (Purdue Univ.) 1905,

Crabtree, Harvard Hersey, A.B. 1907,

*Cronin, Herbert Joseph,

Dawson, Roger Paul, A.B. (Holy Cross Coll.) 1907,

Lewiston, Me.

Boston.

San José, Cal.

Holyoke.

W. Medford.

Charleston, S.C.

Winchester. Charlestown.

Ashaway, R.I.

Sioux City, Ia. Allston.

Brockton.

Worcester.

W. Newton.

Somerville. Boston.

Woburn.

Urbana, Ill.

Washington, D.C.

Somerville.

Stratford, Conn.

Northampton.

Hancock, Me.

Boston.

Waterbury, Conn.

* Admitted by special vote of the Administrative Board.

Dempsey, James Edward, A.B. (Holy Cross Coll.) 1906,

Dixon, Patrick Joseph Harkins, A.B. (Holy Cross Coll.) 1895,

Dulligan, Peter James, A.B. (Holy Cross Coll.)

Duston, Frank Algar, A.B. (Univ. of New Brunswick) 1898,

Emerson, Paul Waldo, A.B. 1907,

Enos, John Silveira, A.B. (Brown Univ.) 1907,

Eustis, Richard Spelman, A.B. 1907,

Eversole, George Edwin, A.B. 1907,

Feeley, Walter Clarence, A.B. 1908,

Finnegan, Frank Augustine, A.B. (Holy Cross Coll.) 1907.

Finnegan, Philip Joseph, A.B. 1908,

Forbes, Henry Stone, A.B. 1905,

Frank, Morris, A.B. 1908 (1907),

Fraser, Somers, A.B. 1907,

Gaunt, Frank Peyton, A.B. (Univ. of Missouri) 1906.

Greenebaum, Jacob Victor, A.B. 1908 (1907), Grover, Joseph Isaac, A.B. (Brown Univ.) 1907, Gruening, Ernest Henry, A.B. 1907,

Haight, Harry William, A.B. (Princeton Univ.) 1907,

Hammond, John Wilkes, Jr., A.B. (Dartmouth Coll.) 1907,

Harris, Herbert Elisha, A.B. (Brown Univ.) 1907, Providence, R.I. Harvie, Peter Lyons, A.B. 1908,

Hedblom, Carl Arthur, A.B. (Colorado Coll.) 1907, A.M. (ibid.) 1908,

Hill, Prescott Tillinghast, A.B. (Brown Univ.) 1906, Providence, R.I. Hornor, Albert Aurelius, A.B. (Univ. of Virginia) 1907.

Houghton, James Tilley, A.B. 1908,

Hunt, Robert Bates, A.B. (Clark Univ.) 1907,

Jennings, Alpheus Felch, A.B. (Univ. of Michigan) 1907,

Joslyn, Arthur Everett, s.B. (Northwestern Univ.) 1903, A.M. (Harvard Univ.) 1904, Knowlton, Charles Colby, A.B. (Bowdoin Coll.)

1906,

Milford.

Boston.

Worcester.

St. Stephen, N.B. Cheyenne, Wyoming. Providence, R.I.

Cambridge. Seattle, Wash.

Cambridge.

Lowell.

Salem.

Milton.

Boston.

E. Weymouth.

Roslindale.

Cincinnati, O.

Providence, R.I. New York, N.Y.

Mendota, Ill.

Cambridge.

Everett, Wash.

Aurora, Neb.

Helena, Ark.

Saratoga Springs, N. Y. Brockton.

Detroit, Mich.

Marengo, Ill.

Ellsworth, Me.

Lazarus, Louis, A.B. 1906,

Leland, George Adams, Jr., A.B. 1907,

Lincoln, George Chandler, A.B. 1905,

Lindsay, John Crandall, A.B. (Colby Coll.) 1906,

McCann, Charles Daniel, PH.B. (Brown Univ.) 1907,

McCarty, Franklin Bennett, s.B. (Univ. of Notre Dame) 1907,

MacMichael, Earle Haggett, A.B. (Bowdoin Coll.)

Main, Roscoe Conkling, A.M. (Univ. of Illinois) 1907.

Marshall, Frank Fremont, A.B. 1907,

Means, James Howard, A.B. 1907,

Miller, Alvah Strong, A.B. (Univ. of Rochester) 1907.

Morrill, Ashley Baker, s.B. 1908,

Mueller, Otto Henry, A.B. (State Univ. of Iowa) 1903,

Murphy, John Joseph, A.B. (Holy Cross Coll.)

Nelson, Luther Townsend, A.B. (Boston Univ.) 1905,

*O'Donoghue, Edward John,

O'Hare, James Patrick, A.B. 1908 (1907),

O'Keefe, Edward Scott, A.B. 1907,

*Pattajo, Christ. Alexis (College of Monastir, Abella, Macedonia) 1902,

Penix, John Harve, A.B. (William Jewell Coll.) 1906.

Percy, Karlton Goodsell, A.B. (Yale Univ.) 1907, Perry, Harold Edgar, A.B. 1907,

*Peterson, Hugo Oliver,

Pierce, Glenn McKillips, PH.B. (Westminster Coll.) 1906,

Porter, Miles Fuller, Jr., A.B. (Williams Coll.) 1907.

*Prescott, George Lincoln,

Prizer, Edward Levis, A.B. 1908 (1907),

Reed, Floyd Orton, s.B. (Univ. of Rochester) 1907,

Roxbury.

Boston.

Worcester.

Waterville, Me.

Brockton.

Lynn.

E. Boston.

Pittsfield, Ill. Worcester.

Boston.

Rochester, N.Y. Concord, N.H.

Iowa City, Ia.

Cambridge.

Roxbury.

Cambridge. Milton.

Lynn.

Monastir, Roumania.

Bowling Green, Mo.

Brookline.

Brookline.

Worcester.

W. Elizabeth, Pa.

Fort Wayne, Ind.

Concord.

So. Orange, N.J.

Berkshire, N.Y.

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Reynolds, Ralph Leavitte, A.B. (Colby Coll.) 1906,

Richards, Dexter Newell, A.B. (Leland Stanford Jr. Univ.) 1907,

Richardson, Russell, A.B. (Princeton Univ.) 1904,

Robinson, Henry Ashton, A.B. 1908,

Ruggles, Howard Edwin, A.B. (Leland Stanford Jr. Univ.) 1907,

Sheldon, Russell Firth, A.B. 1907,

Smith, William David, A.B. 1899,

*Starr, Samuel,

Stine, Dan Gish, A.B. (*Univ. of Missouri*) 1907, Temple, William Franklin, Jr., A.B. 1908,

Thompson, Austin Bassett, A.B. (Williams Coll.) 1907.

Whidden, Rae Wygant, A.B. 1908,

White, Paul Dudley, A.B. 1908, *Whitney, George Harold,

Waterville, Me.

Gridley, Cal.

Brookline. Hingham.

Ross, Cal. Lynn. Gardner. Roxbury. Tipton, Ind. Boston.

Orange, N.J.
Portland, Ore.
Roxbury.
Lexington, Ky.

FIRST CLASS

Alcuzar, Isaac, A.B. (*Univ. of Wisconsin*) 1908, Alter, Samuel Mitchell, A.B. 1909 (1908), Baker, Donald Vinton, A.B. 1908,

Barton, Lyman Guy, Jr., A.B. (Princeton Univ.) 1908,

†Bauer, Louis Hopewell (Harvard),

Bedrossian, Edward Hagop, A.B. (Anatolia Coll., Turkey) 1904,

Behlow, William Wallace, A.B. (Leland Stanford Jr. Univ.) 1907,

Bell, Richard Dana, A.B. 1908,

Binney, George Hayward, Jr., A.B. 1908,

Brennan, Daniel Clarke, A.B. 1907,

Broderick, George Aloysius, A.B. (Holy Cross Coll.) 1903,

*Butler, Fergus Almy,

Coe, George Clifford, A.B. (Leland Stanford Jr. Univ.) 1908,

†Coffin, Whitman King (Harvard),

Williamsport, Pa.
Boston.
Roxbury.

Willsboro, N. Y. Jamaica Plain.

Marsovan, Turkey.

Redlands, Cal. Somerville. Boston. Cambridge.

Lenox.
Danvers.

Portland, Ore. W. Medford.

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† Has completed work in Harvard College for the A.B. degree.

Coller, Frederick Amasa, s.m. (So. Dakota State Coll.) 1908,

Comstock, Carl Rodney, A.B. 1908,

Crabtree, Ernest Granville, PH.B. (Univ. of Wooster) 1906,

Creamer, William Henry, A.B. (Holy Cross Coll.) 1907.

Donovan, Joseph Aloysius, A.B. (Bates Coll.) 1908,

Elliott, Malcolm Robertson, A.B. (Acadia Univ.)

Farnsworth, Earle Edwin, A.B. (Cornell Univ.)

Gage, Harry Alfred, A.B. (Univ. of Oklahoma)

Grady, Thomas Francis, A.B. (Holy Cross Coll.) 1908,

Hackett, Lewis Wendell, A.B. 1905,

Hersam, Norman Paul, s.B. (Univ. of California) 1908,

*Johnston, Frank Cliffe,

*Jones, Ellis William,

Knowlton, Don Jerome, A.B. 1908,

Lacey, Walter Maurice, A.B. (Williams Coll.) 1908, Cheyenne, Wyo. Look, Percy Jonathan, A.B. (Boston Univ.) 1908,

Lyman, Henry, A.B. 1901,

MacAdam, Guy James, A.M. (Univ of New Brunswick) 1904,

Meyers, Alfred Edward, A.B. (Leland Stanford Jr. Univ.) 1907,

Minot, George Richards, A.B. 1908,

†Murphy, Joseph Leroy (Harvard),

O'Shea, William Michael, A.B. (Gonzaga Coll.)

Parker, Raymond Brewer, s.B. (Dartmouth Coll.) 1908,

Porter, Donald Wallace, A.B. (Yale Univ.) 1908,

*Pratt, Ezekiel,

†Rackemann, Francis Minot (Harvard),

Ramsey, Wayne Stevenson, A.B. (Washington and Jefferson Coll.) 1908,

Los Angeles, Cal.

Saratoga Springs, N.Y.

Zanesville, O.

Fall River.

Houlton, Me.

Clarence, N.S.

Grand Island, Neb.

Pauls Valley, Okla.

Clinton.

Belmont, Cal.

Stoneham. Leasburg, N.C. Boston. Marion.

Farmington, Me. Brookline.

Woodstock, N.B.

Spokane, Wash. Boston. Taunton.

Spokane, Wash.

Reading.

New Haven, Conn. Cohasset.

Readville.

Coraopolis, Pa.

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[†] Has completed work in Harvard College for the A.B. degree.

Reggio, André William, A.B. 1908,

Reid, Henry Squire, Ph.B. (Syracuse Univ.) 1907.

Richardson, Clarence Hudson, A.B. (Lincoln Univ.) 1901,

Richardson, Henry Stephen, A.B. (Amherst Coll.) 1904,

Riley, William Bernard, A.B. (Holy Cross Coll.) 1905,

Rogers, Orville Forrest, Jr., A.B. 1908,

Rounsefell, Clifford George, A.B. 1907,

Russell, John Scott, A.B. (Williams Coll.) 1907, Sauter, Albert Lawrence, A.B. (Pennsylvania

Coll.) 1908, Smillie, Wilson George, A.B. (Colorado Coll.)

1908,

Talbot, John Edward, A.B. 1902, LL.B. 1905, Ten Broeck, Carlon, A.B. (*Univ. of Illinois*)

Thomas, Charles Francis, Jr., A.B. (Bowdoin Coll.) 1907,

Tribou, Howard Arthur, s.B. (Colby Coll.) 1908, †Wilson, Philip Duncan (Harvard),

Woody, MacIver, A.B. (Richmond Coll.) 1905, A.B. (Harvard Univ.) 1907, Boston.

Rome, N.Y.

Philadelphia, Pa.

Franklin.

Central Falls, R.I.

Dorchester.

Cambridge.
Massena, N. Y.

Commollowille Pa

Connellsville, Pa.

Eaton, Colo. Holliston.

Parsons, Kan.

Caribou, Me. Rockport, Me. Columbus, O.

Louisville, Ky.

SPECIAL STUDENTS.

*Allen, Larned Van Patten,

*Badal, Elijah Baba,

Doherty, Francis Joseph,

*Morse, Sterne,

Perlstein, Isidor,

Ring, Dennis Joseph, Ll.B. (Boston Univ. Sch. of Law) 1908,

Ring, William Dominic, LL.B. (Boston Univ. Sch. of Law) 1908,

*Rockey, Eugene Watson,

*Shenudah, Selim,

*Symonds, Cleon Walter,

*Wesselhoeft, Conrad,

Davenport, Ia.
Webster.

Woburn.

Brookline. Cassel, Hessen, Ger.

Lowell.

Lowell.

Portland, Ore.

Senoures, Fayoum, Egypt.

Waltham.

Cambridge.

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[†] Has completed work in Harvard College for the A.B. degree.

THE SUMMER SCHOOL OF MEDICINE

Achorn, Kendall Lincoln, s.B. 1903, Boston. Adams, Martin Eugene, PHARM.D. (Mass. Coll. of Pharmacy) 1902, Boston. Altree, George Herbert, M.D. (Baltimore Med. Coll.) 1893, Tampa, Fla. Anderson, Wilhelm Sigurd, M.D. (Univ. of Minnesota) 1903, Warren, Minn. Austin, Richard Sisson, Boston. Baker, Albert Taylor, M.D. (Iowa State Univ.) 1876. Vienna, Mo. Baker, Walter Eugene, M.D. (Drake Univ. Coll. of Med.) 1907, Des Moines, Ia. Balboni, Gerardo Monari, M.D. 1904, Boston. Beck, Clyde McKay, Ph.G. (Univ. of the South) 1906, M.D. (Coll. of Phys. and Surg., Memphis) 1908, Memphis, Tenn. Beebe, Silas Palmer, s.B. (Valparaiso Coll.) 1896, s.B. (Harvard Univ.) 1900, m.s. (Yale Univ.) 1902, PH.D. (ibid.) 1904, Flushing, N.Y. Begg, Alexander Swanson, M.D. (Drake Univ. Coll. of Med.) 1907, Des Moines, Ia. Berry, Elmer, s.B. (Univ. of Nebraska) 1901, Springfield. Bland, Leonard F., s.B. (Agric. Mechanical Coll. of Texas) 1899, M.D. (Memphis Hosp. Med. Port Arthur, Tex. Coll.) 1904, Boardman, William Parsons, A.B. 1902, M.D. 1905, Boston. Bowers, George Francis Haskell, A.B. 1906, Clinton. Bradley, Charles Henderson, M.D. 1902, No. Adams. Brayton, Howard Wheaton, PH.B. (Brown Univ.) 1906. Providence, R.I. Worcester. Brennan, John Joseph, M.D. 1886, Bryant, Giles Waite, M.D. (Dartmouth Med. Coll.) 1882, Somerville. Bunce, Philip Dibble, A.B. (Yale Univ.) 1888, M.D. (Columbia Univ.) 1891, Hartford, Conn.

Burgess, Alexander Manlius, A.B. (Brown Univ.)

Portland, Me.

1906,

1894.

Coll.) 1882,

Dental Surgery),

Emery, William Campbell,

Finkelstein, Harry, m.D. 1904, Forbes, Alexander, A.B. 1904, A.M. 1905,

French, Ralph Winward, A.B. 1907,

Foster, Horace Kendall, M.D. (Dartmouth Med.

Frink, Carroll Hateley, D.D.S. (Baltimore Coll. of

Carey, Willis Walton, Fort Wayne, Ind. Cartin, Harry James, M.D. (Jefferson Med. Coll.) 1901. Johnstown, Pa. Chase, Peter Pineo, PH.B. (Brown Univ.) 1906, Hyannis. Clark, Elbert, s.B. (Univ. of Arkansas) 1903, Waldo, Ark. Clark, John Aloysius, A.B. (Santa Clara Coll.) 1901, M.D. (Univ. of California) 1907, Gilroy, Cal. Cody, Claude Carr, A.B. (Southwestern Univ.) 1904, A.M. (ibid.) 1905, Georgetown, Tex. Conro, Arthur Clifton, A.B. (Harvard Univ.) 1893, M.D. (Chattanooga Med. Coll.) 1901, E. Longmeadow. Corbett, J. Frank, M.D. (Univ. of Minnesota) 1896, Minneapolis, Minn. Cowan, John Rice, M.D. 1894, Danville, Ky. Cunningham, Thomas Edward, Jr., A.B. 1906, Cambridge. Curtis, Charles Leverett, Middleton. Cutler, Charles Newton, M.D. 1898, Chelsea. Columbus, O. Dages, Oren Newton, A.B. (Princeton Coll.) 1906, Daly, Timothy Joseph, M.D. 1897, Lawrence. Dane, Charles Murphy, A.B. 1906, Brookline. Dane, John Murphy, s.B. 1907, Brookline. Davis, George Anthony, M.D. (Jefferson Med. Coll.) 1903, Lynn.Davis, Stephen Rich, M.D. (Univ. of Vermont) 1896, Lynn.DeBuys, Laurence Richard, M.D. (Tulane Univ.) 1904, New Orleans, La. Delisle, Jean Baptiste, A.B. (Laval Univ.) 1888, м.р. (ibid.) 1892, St. George de Windsor, Can. Derr, John Sebastien, M.D. (Univ. of Virginia) Boston. 1905, Donoghue, James Crowley, M.D. 1898, Boston. Ela, Paul Francis, A.B. (Wesleyan Univ.) 1884, A.M. (ibid.) 1888, M.D. (Harvard Med. Sch.)

E. Douglas.
Dorchester.
Boston.
Milton.

Peabody.
Fall River.

Fernandina, Fla.

Gamble, James Lander, A.B. (Leland Stanford Jr. Univ.) 1906,

Grandy, Charles Rollin, A.B. (Univ. of Virginia) 1889, M.D. (ibid.) 1892,

Guittard, Virgil David, M.D. (Ohio Med. Univ.) 1907.

Hacker, Christian Gottlieb, Ph.G. (Albany Coll. of Pharm.) 1896, M.D. (Albany Med. Coll.) 1899,

Hamilton, Burton Everett, A.B. 1907,

Hammond, Charles, M.D. (Yale Med. Sch.) 1904, Harrington, Amos Thomson, A.B. (Yale Univ.) 1894, S.T.B. (ibid.) 1897,

Hawkes, Charles Eleazer, A.B. 1898, M.D. 1901, Hellmann, Robert Richard, A.B. 1906,

Herr, Edward Albert, A.B. (Dartmouth Coll.) 1906,

Hornor, Albert Aurelius, A.B. (Univ. of Virginia) 1907,

Hovorka, Thomas Wenceslaus, Pharm.D. (Univ. of Minnesota Coll. of Pharm.) 1894, M.D. (Hamline Univ.) 1902,

Howes, Frank Miller, A.B. 1907,

Hunt, Arthur Leroy, A.B. (Bowdoin Coll.) 1898, M.D. (George Washington Univ.) 1905,

Hunt, Harold Otis,

Irving, Frederick Carpenter, A.B. 1906,

Ish, George William Stanley, A.B. (Yale Univ.) 1905,

Jobbing, James Wesley, M.D. (Tennessee Med. Coll.) 1896,

Kellogg, Foster Standish, A.B. 1906,

Kennison, Frederick Marshman, M.D. (Tufts Med. Sch.) 1905,

Kerr, Isabelle Dickieson, M.D. (Tufts Med. Sch.) 1903.

Key, Sothoron, M.s. (Maryland Agricul. Coll.) 1895, M.D. (Columbia Univ.) 1899,

Larrabee, Frank Walton, A.B. (Bates Coll.) 1891, M.D. (Dartmouth Med. Sch.) 1896,

Lazarus, Louis, A.B. 1906,

Lee, Bieyao Tsanchi, B.C.E. (Tientsin Univ., China) 1899,

Little, George Thomas, M.D. 1902,

Paris, Ky.

Norfolk, Va.

Columbus, O.

Albany, N.Y. Roxbury. Hanover.

Jamaica Plain. Providence, R.I. Cincinnati, O.

Waterbury, Conn.

Helena, Ark.

Glencoe, Minn.
Rockland.

Washington, D.C. Newtonville. Ogdensburg, N.Y.

Little Rock, Ark.

New York, N. Y. Boston.

Dorchester.

Boston.

Washington, D.C.

Westerly, R.I. Hull.

Wuchow, China. No. Uxbridge. McKeage, Robert Burns, M.D. (Medico-Chirurgical Coll., Philadelphia) 1893,

MacMichael, Earle Haggett, A.B. (Bowdoin Coll.) 1907, McNabb, Charles Porter, M.D. (Univ. of Ten-

nessee) 1884,

Maddox, Robert Daniel, M.D. (Med. Coll. of Ohio) 1900.

Mahoney, Matthew Patrick, A.B. (Georgetown Univ.) 1906,

Marble, Henry Chase, A.B. (Clark Univ.) 1906, Marshall, William Reginald, M.D. (Baltimore Med. Coll.),

Mason, Robin Ferguson, M.D. (Memphis Hosp. Med. Coll.) 1908,

Meader, Charles Nash, A.B. (Colby Coll.) 1906,

Mendenhall, Walter Leslie, M.D. (Drake Med. Coll.) 1906,

Merrill, William Howe, M.D. (Maine Med. Sch.) 1888.

Miller, Richard Henry, A.B. 1905,

Mohoney, John Lewis, M.D. (Boston Univ. Sch. of Med.) 1898,

Moore, George Albert, s.B. 1907,

Moriarty, James Liguori, M.D. 1896,

Morse, Mary Elizabeth, A.B. (Woman's Coll. of Baltimore) 1899, M.D. (Johns Hopkins Med. Sch.) 1903,

Nabers, Samuel Faust, D.D.S. (Univ. of Pennsylvania) 1895,

Nagle, Evelyn Wyman, M.D. (Woman's Med. Coll. of Pennsylvania) 1903,

Nahigan, Matthew Nigohos, M.D. (Yale Med. Sch.) 1907.

O'Connor, Joseph Sylvester,

Ostergren, Christian Wilhelm,

Outhouse, John Stanley, A.B. (Mt. Allison Univ.) 1894, M.D., C.M. (McGill Univ.) 1898,

Paroni, Romilda, s.B. (Univ. of California) 1903, м. D. (ibid.) 1907,

Pease, Edmund Morris, A.B. (Pomona Coll.) 1904, Phelan, Edward Francis,

Porter, Emery Moulton, Ph.B. (Brown Univ.) 1906, Boston.

Scranton, Pa.

E. Boston.

Knoxville, Tenn.

Cincinnati, O.

Lowell.

Worcester.

Lynn.

Memphis, Tenn. Waterville, Me.

Des Moines, Ia.

Lawrence. Fitchburg.

Boston.

No. Monroe, N. H. Waterbury, Conn.

Baltimore, Md.

Birmingham, Ala.

Boston.

Worcester. Worcester.

Boston.

Shelburne Falls.

Berkeley, Cal. Claremont, Cal. Ludlow, Vt.

Poulin, James Edward, M.D. (Med. Sch. of Maine) 1905,

Ramstad, Niles Oliver, M.D. (Univ. of Minnesota) 1899,

Ray, Charles James, M.D. (Cleveland Med. Coll.) 1895,

Richardson, Clarence Hudson, A.B. (Lincoln Univ.) 1901,

Richardson, Henry Stephen, A.B. (Amherst Coll.) 1904,

Riddle, Lincoln Ware, A.B. 1902, PH.D. 1906,

Robinson, Philip Eaton, A.M. (Tufts Med. Sch.) 1904,

Rockwell, John Arnold, Jr., s.B. (Mass. Inst. of Tech.) 1896, M.D. (Boston Univ. Sch. of Med.) 1899,

Ross, Fred Ernest, M.D. (Univ. of Buffalo) 1897, Ruble, Wells Allen, s.B. (Battle Creek Coll.) 1897, M.D. (American Med. Missionary Coll.) 1906,

Russell, James Percy, A.B. (Bowdoin Coll.) 1897, M.D. (Med. Sch. of Maine) 1903,

Ryder, Charles Tripp, A.B. 1906,

Schwarz, Joseph, S.B. (Alabama Polytechnic Inst.) 1898, M.D. (Univ. of Tulane) 1901, Sellers, Neal Edward, M.D. (Univ. of Alabama)

Shedd, George Harold, A.B. 1905,

Simonds, Otis Franklin, A.B. (Bowdoin Coll.) 1906,

Smedley, Robert Clemens, M.D. (Univ. of Denver) 1900,

Somerville, William Glassel, A.B. (Univ. of Alabama) 1885, M.D. (Coll. of Phys. and Surg., New York) 1889,

Sproull, John, M.D. (Boston Univ. Sch. of Med.) 1901,

Starr, Samuel,

1905,

Stewart, John Howard, M.D. (Syracuse Med. Coll.) 1908,

Stick, Edward Wentz, A.B. (Franklin and Marshall Coll.) 1904,

Stitt, Edward Rhodes, A.B. (So. Carolina Coll.) 1885, M.D. (Univ. of Pennsylvania) 1889,

Waterville, Me.

Bismarck, No. Dak.

Findlay, O.

Philadelphia, Pa.

Franklin. Wellesley.

Boston.

Cambridge. Erie, Pa.

Washington, D.C.

Robbinston, Me. Andover.

Mobile, Ala.

Mobile, Ala. No. Conway, N. H.

Portland, Me.

Salt Lake City, Utah.

Tuscaloosa, Ala.

Haverhill.
Roxbury.

So. Plymouth, N.Y.

Hanover, Pa.

Rock Hill, S.C.

Stone, Murray Chaffee, M.D. 1903,

Terrell, Alexander Bismarck, s.B. (Univ. of Chicago) 1907,

Tishler, Mark, D.M.D. (Tufts Dental Sch.) 1907, Trimble, William Kerk, M.D. (Kansas City Med. Coll.) 1900,

Turner, William George, M.D. (Baltimore Med. Coll.) 1904,

Wagner, Charles Jacob, M.D. (Southwestern Univ.) 1908,

Walker, Joseph, M.D. (Jefferson Med. Coll.) 1908, Walsh, John Gormley, A.B. (Brown Univ.) 1906, Walsh, Thomas Nelson, A.B. (McGill Univ.) 1889, M.D. (ibid.) 1902,

Wesselhoeft, Conrad,

Woolery, Homer, A.B. (Indiana Univ.) 1897, M.D. (ibid.) 1907,

Yew, Foh-chung,

Fitchburg.

Forth Worth, Tex Boston.

Kansas City, Mo.

Fall River.

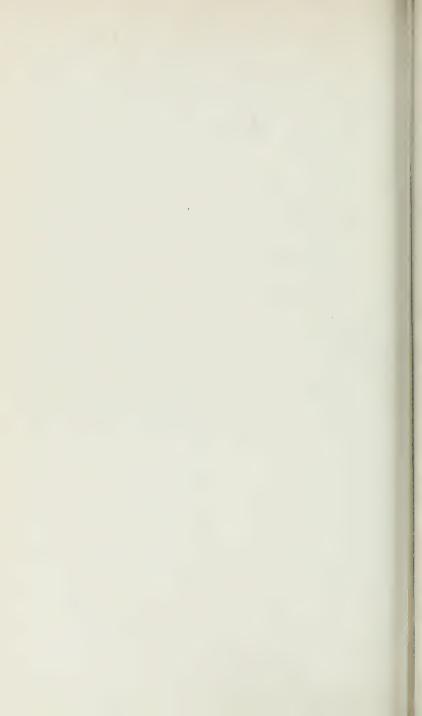
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Hawkeye, Ia. Cambridge.

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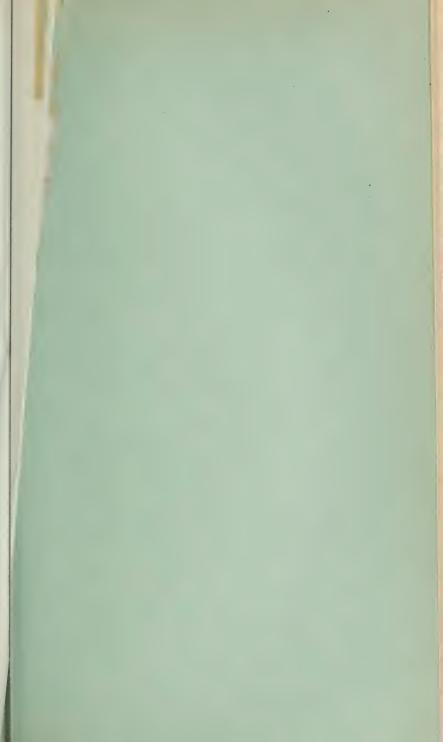
SUMMARY.

IN COURSES FOR GRADUATES, FOURTH CLASS	
In Courses for Graduates, 19 of the Catalogue for 1907– In Summer Courses, 1908.	08 48
Acadia College	University of New Brunswick









OFFICIAL REGISTER OF HARVARD UNIVERSITY

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The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.

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OFFICIAL REGISTER

OF

HARVARD UNIVERSITY

VOLUME VI

DECEMBER 1, 1909

NUMBER 30

THE

HARVARD MEDICAL SCHOOL LONGWOOD AVENUE, BOSTON, MASS.

1909-10

SECOND EDITION

WITH AN ANNOUNCEMENT FOR 1910-11



Published by Barvard University



ANNOUNCEMENT

OF THE

MEDICAL SCHOOL

LONGWOOD AVENUE, BOSTON, MASS.

OF

HARVARD UNIVERSITY

FOR

1909-10

SECOND EDITION

WITH AN ANNOUNCEMENT FOR 1910-11



Published by the University

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MEDICAL SCHOOL CALENDAR

1909.

April 1, Friday.

Sept. 23, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned. Sept. 29, Wednesday. Examination in Chemistry for admission. Sept. 30, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date. Oct. 6, Wednesday. Inauguration of the President. Oct. 7 Thursday. Nov. 1, Monday. Last day for receiving essays for the William H. Thorndike Prize. Nov. 25, Thursday. Thanksgiving Day: a holiday. Nov. 30, Tuesday. Last day for receiving applications for the Cheever and Hayden Scholarships. RECESS FROM DEC. 23, 1909, TO JAN. 2, 1910, INCLUSIVE 1910. Last day for receiving dissertations for the 1, Saturday. Jan. Boylston Medical Prizes. Jan. 15, Saturday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1910. Jan. 27. Thursday. Mid-year Examinations begin. Jan. 31, Monday. Payment of the second instalment of the tuitionfee is required on or before this date. Feb. 1, Tuesday. Second half-year begins. Feb. 22, Tuesday. Washington's Birthday: a holiday.

Last day for receiving dissertations for the

RECESS FROM APRIL 17 TO APRIL 23, INCLUSIVE

- May 2, Monday. Last day for receiving applications for the Bullard Fellowships.
- May 2, Monday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- May 2, Monday. Last day for receiving applications for Scholarships for 1910-11 (except the Cheever and Hayden Scholarships).
- May 2, Monday. Last day for receiving applications of candidates for the degree of M.D. in 1910.
- May 30, Monday. Memorial Day: a holiday.
- June 1, Wednesday. Examinations begin.
- June 16, Thursday. Examination in Chemistry for admission.
- June 29, Wednesday. Commencement.

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT TO SEPTEMBER 28, INCLUSIVE

- Sept. 22, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 28, Wednesday. Examination in Chemistry for admission.
- Sept. 29, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Nov. 1, Tuesday. Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 24, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Wednesday. Last day for receiving applications for the Cheever and Hayden Scholarships.
- ()FFICE HOURS OF THE DEAN, FRIDAYS, 4 TO 5 P.M.; OF THE SECRE-TARY, TUESDAYS AND THURSDAYS, 12 M. TO 1 P.M.; OF THE DIRECTOR OF THE SUMMER SCHOOL, DAILY, EXCEPT SATURDAYS, 3 TO 4 P.M., JUNE 1 TO SEPTEMBER 30.

THE MEDICAL SCHOOL

FACULTY OF MEDICINE *

ОТТ	LAWRENCE	LOWELL,	LL.B.,	LL.D.,	ADDRESS.7

ABB PRESIDENT. 17 Quincy St., Cambridge. HENRY A. CHRISTIAN, M.D., DEAN, and Hersey

Professor of the Theory and Practice of Physic,

252 Marlborough St.

CLARENCE J. BLAKE, M.D., Walter Augustus Lecompte Professor of Otology, 226 Marlborough St.

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy, Harvard Medical School.

JOHN H. McCOLLOM, M.D., Professor of Contagious Boston City Hospital. ABNER POST, M.D., Assistant Professor of Syphilis,

16 Newbury St.

JAMES J. PUTNAM, M.D., Professor of Diseases of the Nervous System, 106 Marlborough St.

FREDERICK C. SHATTUCK, M.D., LL.D., Jackson Professor of Clinical Medicine, 135 Marlborough St.

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery,

133 Newbury St.

CHARLES A. BRACKETT, D.M.D., Professor of Dental Pathology, Newport, R.I.

THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics. 197 Commonwealth Ave.

EUGENE H. SMITH, D.M.D., Professor of Clinical Dentistry and Orthodontia, and Dean of the Dental School, 283 Dartmouth St.

WILLIAM F. WHITNEY, M.D., John Barnard Swett Jackson Curator of the Warren Anatomical Museum,

Harvard Medical School.

CHARLES S. MINOT, S.D., LL.D., D.Sc., James Stillman Professor of Comparative Anatomy, Harvard Medical School.

^{*}Arranged, with the exception of the President and Dean, on the basis of collegiate seniority.

[†] The address is Boston, unless otherwise stated.

- MAURICE H. RICHARDSON, M.D., Moseley Professor of Surgery, 224 Beacon St.
- CHARLES M. GREEN, M.D., Professor of Obstetrics,
 78 Marlborough St.
- EDWARD C. BRIGGS, M.D., D.M.D., Professor of Dental Materia Medica and Therapeutics, 129 Marlborough St.
- HERBERT L. BURRELL, M.D., John Homans Professor of Surgery, 22 Newbury St.
- WILLIAM T. COUNCILMAN, M.D., LL.D., Shattuck

 Professor of Pathological Anatomy, 78 Bay State Road.
- MYLES STANDISH, M.D., Williams Professor of Ophthalmology, 6 St. James Ave.
- HAROLD C. ERNST, M.D., Professor of Bacteriology,

 Harvard Medical School.
- WILLIAM P. COOKE, D.M.D., Professor of Prosthetic Dentistry, 330 Dartmouth St.
- PHILIP COOMBS KNAPP, M.D., Clinical Instructor in Diseases of the Nervous System, 535 Beacon St.
- WILLIAM H. POTTER, D.M.D., Professor of Operative Dentistry, 16 Arlington St.
- HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine, 263 Beacon St.
- JOHN T. BOWEN, M.D., Edward Wigglesworth Professor of Dermatology, 14 Marlborough St.
- HENRY JACKSON, M.D., Instructor in Clinical Medicine, 380 Marlborough St.
- GEORGE G. SEARS, M.D., Assistant Professor of Clinical Medicine, 426 Beacon St.
- ALGERNON COOLIDGE, Jr., M.D., Assistant Professor of Laryngology, 613 Beacon St.
- ROBERT W. LOVETT, M.D., Assistant Professor of Orthopedic Surgery, 234 Marlborough St.
- FRANZ PFAFF, M.D., Professor of Pharmacology and Therapeutics, 29 Gloucester St.
- THEOBALD SMITH, M.D., LL.D., George Fabyan

 Professor of Comparative Pathology, Harvard Medical School.
- WILLIAM T. PORTER, M.D., LL.D., Professor of Comparative Physiology, Harvard Medical School.

29 Commonwealth Ave.

Harvard Medical School.

37 Trowbridge St., Cambridge.

JAMES G. MUMFORD, M.D., Instructor in Surgery,

MILTON J. ROSENAU, M.D., Professor of Preventive

Medicine and Hygiene, Harvard Medical School. FRANK B. MALLORY, M.D., Associate Professor of Pathology. Harvard Medical School. EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology, 294 Marlborough St. JOHN B. BLAKE, M.D., Instructor in Surgery, 161 Beacon St. HOWARD A. LOTHROP, M.D., Instructor in Surgery, 101 Beacon St. JOHN L. MORSE, M.D., Assistant Professor of Pedi-70 Bay State Road. atrics, CHARLES A. PORTER, M.D., Assistant Professor of 254 Beacon St. Surgery, EDWARD W. TAYLOR, M.D., Instructor in Neurology, 457 Marlborough St. RICHARD C. CABOT, M.D., Assistant Professor of 190 Marlborough St. Clinical Medicine, ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic, 81 Bay State Road. JAMES H. WRIGHT, M.D., Sc.D., Assistant Professor Mass. General Hospital. of Pathology, OTTO FOLIN, Ph.D., Hamilton Kuhn Professor of Harvard Medical School. Biological Chemistry, ROBERT B. GREENOUGH, M.D., Instructor in Surgery, 377 Beacon St. FRANKLIN S. NEWELL, M.D., Assistant Professor of Obstetrics and Gynaecology, 379 Beacon St. LEONARD W. WILLIAMS, Ph.D., Instructor in Harvard Medical School. Comparative Anatomy, JOHN L. BREMER, M.D., Demonstrator of Histology, Harvard Medical School. WALTER B. CANNON, M.D., George Higginson Professor of Physiology, Harvard Medical School. MAURICE V. TYRODE, M.D., Instructor in Pharma-416 Marlborough St. cology, JOHN WARREN, M.D., Assistant Professor of Anatomy, Harvard Medical School. DAVID CHEEVER, M.D., Demonstrator of Anatomy, 20 Hereford St.

FREDERIC T. LEWIS, M.D., Assistant Professor of

ELMER E. SOUTHARD, M.D., Bullard Professor of

Embryology,

Neuropathology,

- ERNEST E. TYZZER, M.D., Assistant Professor of Pathology, Harvard Medical School.
- LAWRENCE J. HENDERSON, M.D., Instructor in Biological Chemistry, Westmorly 2, Cambridge.
- CHANNING FROTHINGHAM, Jr., M.D., Secretary
 of the Faculty of Medicine, and Assistant in the Theory
 and Practice of Physic,
 51 Hereford St.

STANDING COMMITTEES FOR THE MEDICAL SCHOOL

Admission. — Dr. Christian (Chairman), and Drs. Folin and Lewis.

Buildings. — Dr. J. Warren (Chairman), and Drs. Bremer and C. Frothingham, Jr.

Library. — Dr. Joslin (Chairman), and Drs. W. T. Porter, L. W. Williams, Southard, and Tyrode.

Students' Health. — Dr. Ernst (Chairman), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

Summer School of Medicine. — Dr. —— (Chairman and Director), and Drs. Morse, Greenough, Newell, and Southard.

Office Hours of the Dean, Fridays, 4 to 5 p.m.; of the Secretary, Tuesdays and Thursdays, 12 m. to 1 p.m.; of the Director of the Summer Schools, daily, except Saturdays, 3 to 4 p.m., June 1 to September 30.

THE HARVARD MEDICAL SCHOOL

BOSTON

GENERAL STATEMENT

Three proressorships of Medicine were established at the University in the years 1782 and 1783. The first degrees in Medicine were conferred in 1788. Before 1811, the degree conferred upon graduates of the School was that of Bachelor of Medicine; beginning with 1811, the degree has been Doctor of Medicine. In 1810, the lectures given in Medicine were transferred from Cambridge to Boston, where the first Medical College was built in 1815.

The course of study required in this School for the degree of M.D. is of four years' duration. This requirement was established at the beginning of the year 1892-93.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. In order that the time of study shall count as a full year, students of all classes must present themselves on the first day of the school year and register their names with the Secretary.

There is a Christmas recess from December 23 to January 2 inclusive, and a recess of one week's duration in April.

Beginning with the year 1899-1900 a new arrangement of the subjects taught in the first two years was adopted. During the first half of the first year the students devote their time solely to Anatomy and Histology, and during the second half of the first year to Physiology and Biological Chemistry. They devote the first half of the second year to Pathology and Bacteriology, and the remainder of the second year to a variety of subjects which more particularly prepare the student for the clinical work of the third and fourth years.

Experience has shown that this logical arrangement of the subjects of the first two years enables a student to concentrate his energies to a much greater advantage than he can when his attention is divided among several subjects. Each correlated group presents sufficient variety to avoid monotony. Another advantage of this method is that it greatly increases the amount of time which can be devoted to each subject.

In 1902 certain other changes in the curriculum were adopted, to take effect with the class entering in the autumn of that year. The new course of study is so arranged that the first three years are devoted to prescribed

work, and the fourth year entirely to elective courses. A minimum of one thousand hours' work is required of each fourth-year student; and courses are offered adapted to the student who wishes to fit himself to be a general practitioner, and also suitable courses for those who intend to become specialists or teachers in any department of medicine. The new elective curriculum of the fourth year began in the autumn of 1905.

A series of written, oral, and practical examinations on all the required subjects of medical instruction are distributed throughout the four years' course of study. Every candidate for the degree of Doctor of Medicine must pass these examinations in a satisfactory manner, and also fulfil all the other requirements enumerated on page 67.

The degree of Doctor of Medicine cum laude is given to candidates who obtain an average of 80 per cent. or over in all the required examinations.

Beginning with 1906, special students, not candidates for the degree of Doctor of Medicine, have been admitted, under certain conditions, to all courses in the School and to certain courses specially designed for them. For particulars, see page 81.

Pamphlets descriptive of the many courses of study for Graduates, and of the Summer Courses, may be obtained on application.

Inquiries may be addressed to the Secretary of the Harvard Medical School, Longwood Avenue, Boston, Mass.

The New Buildings

In September, 1906, the Medical School removed from its quarters on Boylston Street to commodious new buildings on Longwood Avenue, distant about a mile from the old building. At the new site the School possesses twenty-six acres of land. Eleven acres are now occupied by the Medical School buildings; the other fifteen are reserved for hospitals which, it is hoped, will be built on this ground in the near future.

The new buildings are five in number: one is designed for administrative and four for laboratory purposes. The administration building contains the necessary offices, several lecture rooms, and the Warren Anatomical Museum. The laboratory buildings provide extensive accommodations for various departments grouped in the buildings as follows:—
(1) anatomy, comparative anatomy, histology, and embryology; (2) physiology, comparative physiology, biological chemistry, and theory and practice of physic; (3) pathology, bacteriology, neuropathology, and surgical pathology; (4) hygiene, pharmacology, comparative pathology, and surgery.

The laboratory buildings are all constructed on one general plan, —two parallel wings united by an amphitheatre. Above each amphitheatre is a large departmental library. The rooms in the various wings have been

designed on a unit system, which will greatly simplify any changes required by future growth or by uses other than those for which the rooms were originally designed. These buildings provide an equipment for teaching and research in various branches of medical science which as a whole is probably unequalled.

For the construction and endowment of these new buildings the School is in lebted to the generosity of Mrs. Collis P. Huntington, Messrs. J. Pierpont Morgan, John D. Rockefeller, David Sears, and a number of other benefactors.

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^{*} Arranged on the basis of collegiate seniority.

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	ot.
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pedies, 601 Beacon	St
PAUL THORNDIKE, M.D., Instructor in Genito-	~••
	CI.
Urinary Surgery, 24 Marlborough	St.
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googy,	~ 50

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HAROLD BOWDITCH, M.D., in Comparative Pathology,
Pond St., Jamaica Plain.

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Harvard Medical School.
FRANKLIN P. JOHNSON, A.B., in Histology and

Embryology, Harvard Medical School.

THE HARVARD MEDICAL SCHOOL

ADMISSION OF STUDENTS

I. Students who have acquired from a recognized college or scientific school a degree in arts or science, following the completion of a course of at least three collegiate years, are admitted as regular students and candidates for the degree of M.D. provided they present certificates showing that they have done satisfactory work in chemistry equivalent to two college courses, with laboratory work in each amounting at least to four hours per week. These courses in chemistry should include general chemistry, organic chemistry, and qualitative analysis; some practice in making careful quantitative determinations is desirable. In case the student cannot present such certificates in chemistry he will be required to pass examinations in these subjects. Students who are not quite able to fulfil all of the requirements in chemistry may enter conditioned in chemistry; but they must make up the condition before the beginning of the second term of the first year.*

II. Candidates who present certificates showing that they have completed two years of undergraduate work at a recognized college or scientific school will be admitted as special students, provided they are able to read French or German and have taken the following college courses,

* Although students are admitted to the Medical School under the conditions indicated under I, it is recommended to those who propose to study medicine that they include if possible among their studies in college certain courses which serve as a direct preparation for or are aids in the study of medicine. Such studies are:—

Chemistry as outlined under I, and without which students are not admitted to the Medical School.

Physics. A college course in experimental physics extending through the college year and including at least four hours of laboratory work per week. The laboratory work should consist largely of accurate physical measurements.

Biology. Two college courses with laboratory work in each amounting to at least four hours per week. This work should include general biology, the dissection of vertebrates, and practice in the use of the microscope and in microscopic technique.

French and German. Any courses requiring considerable practice in reading.

The courses offered by the Harvard Faculty of Arts and Sciences which fit these recommendations are as follows: Physics C; Chemistry 1, 2, and 3; Zoölogy 1, 2, 3, and 4; Botany 2; together with several courses in French and German.

with at least four hours of laboratory work per week in each. (The minimum proportion of a college year to be devoted to each is indicated.)

Physics (4 year).

General Chemistry (4 year).

Qualitative Analysis († year).

Organic Chemistry (1/8 year).

Zoölogy (which must include dissection of vertebrates and work with the microscope) (4 year).

Special students who attain an average grade within five points of the honor mark in their years of residence at the Harvard Medical School will be accepted as candidates for the degree of M.D.

ADMISSION TO ADVANCED STANDING

Students who began their professional studies in other recognized medical schools may be admitted to advanced standing and become candidates for the degree of M.D. under the following conditions:—

All persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in medical studies, must pass examinations and fulfil all requirements of laboratory and practical work in the branches already pursued by the class to which they seek admission, and fulfil all other requirements for admission enumerated under I. Other students who fulfil the requirements for admission enumerated under II may be admitted to advanced standing as special students provided they furnish satisfactory certificate of time spent in medical studies, pass examinations and fulfil all requirements of laboratory and practical work in branches already pursued by the class to which they seek admission. Special students admitted to advanced standing may be accepted as candidates for the degree of M.D. provided they attain an average grade within five points of the honor mark in the years of their residence at the Harvard Medical School.

A graduate of another medical school of recognized standing may obtain the degree of M.D. at this University, after a year's study in the undergraduate course, by passing all examinations and by fulfilling all requirements of laboratory and practical work required in the full undergraduate course, and by fulfilling all requirements for admission. These examinations may be taken only at the times set for the regular examinations in September, February (mid-year examination), and June.

Applicants for advanced standing and graduates of another medical school who have fulfilled in another recognized medical school the requirements of laboratory or practical work of a department of this School may be excused from repeating such requirements, provided the instruction which they have received is considered satisfactory by the Committee on Admission in conference with the head of the department concerned.

DIVISION OF STUDENTS

Students are divided into four classes according to their time of study and proficiency. No student may advance with his class, or be admitted to advanced standing, until he has passed the required examinations in the studies of the previous year, or a majority of them; nor may he become a member of the third class, until he has passed all the examinations of the first, and in addition a majority of those of the second year; nor of the fourth class, until he has passed all the examinations of the first and second years, in addition to a majority of those of the third year.

No student will be permitted to continue his membership in the School, if at the beginning of his second year he has passed none of the first-year examinations.

In order that the time of study shall count as a full year, students of all classes must register at the Dean's office on Thursday, the first day of the academic year.

Students are required to devote themselves exclusively to the work of the School.*

Any student may obtain a certificate of his period of connection with the School.

* The intent of this rule is that students may not engage in hospital work during term time, except in so far as required by the School curriculum.

DIVISION OF STUDIES

FOURTH YEAR ELECTIVES	Surgery Gemito-Utinary Surgery Orthopedics Surgical Pathology Clinical Surgical Pathology Obstetrics Gynaecology Dermatology and Syphilis Neurology and Psychiatry Ophthalmology Otology Laryngology I and 2 Combined Course in Ophthalmology/Colology
Fоиктн Хе	Anatomy 1 and 2 Comp. Anatomy1,2, 3 and 4 Physiology 1 and 2 Comparative Physiology 1 Biochemistry Bacteriology Pathology 1, 2, 3, 4 and 5 Comparative Pathology I Preventive Medicine and Hygiene Legal Medicine Pharmacology Theory and Practice 1, 2, 3, 4 and 5 Clinical Medicine Tropical Medicine Tropical Medicine Tegal And 5 Roentgen Ray Roentgen Ray Pediatrics
THIRD YEAR	*Materia Medica and Therapeutics 3 Clinical Medicine 3 Pediatrics 2 *Surgery (written 2 hrs., 3 practical 1 hr., 3 Chinical Surgery (written 1 hr., practical 1 hr.) 2 Obstetrics 3 Gynaecology 1 Dermatology 1 Syphilis 1 Neurology 1 Psychiatry 1 Reychiatry 1 Cotology 1 Caryngology 1 Genito-Trinary Surgery Laryngology 1 Caryngology 1 Caryn
SECOND YEAR	*Bacteriology 3 *Pathology 3 Preventive Medicine and Hygione 1 Materia Medica and Therapeutics Theory and Practice Clinical Medicine Surgery
FIRST YEAR	*Anakomy 3 *Histology and 5 Embryology 3 Physiology 8 Biochemistry 8

Norg. — Subjects in which an examination is required are in roman letters. The number following the name of the examination indicates the length in hours of the examination. In the fourth year, excitives must be chosen aggregating 1000 hours, each elective or half-course has a value of 125 hours.

METHODS OF INSTRUCTION

During the first three years the following methods of instruction are adopted in the several departments:—

NOTE. — The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

ABBREVIATIONS USED IN THE FOLLOWING PAGES, AND IN THE TABULAR VIEWS

B.C.H. = Boston City Hospital. B.D. = Boston Dispensary.

B.S.H. = Boston State Hospital (Pierce and Austin Farms).

B.L.H. = Boston Lying-in Hospital. Ch.H. = Children's Hospital.

E. and E.I. = Massachusetts Charitable Eye and Ear Infirmary.

F.H. for W. = Free Hospital for Women.
H.M.S. = Harvard Medical School.

I.H. = Infants' Hospital.
L.I.H. = Long Island Hospital.
McL.H. = McLean Hospital.

M.G.H. = Massachusetts General Hospital.

S.D.B.C.H. = South Department, Boston City Hospital.

S.H. = Samaritan Hospital.

S.O.P.D. = Surgical Out-Patient Department.

Anatomy

THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy.

JOHN WARREN, M.D., Assistant Professor of Anatomy.

DAVID CHEEVER, M.D., Demonstrator of Anatomy.

HARRIS P. MOSHER, M.D., Instructor in Anatomy.

ELISHA FLAGG, M.D., Assistant in Anatomy.

ZABDIEL B. ADAMS, M.D., Assistant in Anatomy.

J. Dellinger Barney, M.D., Assistant in Anatomy.

JOHN B. HARTWELL, M.D., Assistant in Anatomy.

Robert M. Green, M.D., Assistant in Anatomy.

First Year. — The course in anatomy occupies the mornings in October, November, and December, and both mornings and afternoons in January. The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model.

The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 53.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Piersol. Cunningham. Gray. Quain. Morris. Gerrish. Collateral Reading. — Dwight, Clinical Atlas of Variations of Hands and Feet. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Sobotta McMurrich, Atlas and Text-book of Human Anatomy. Testut, Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Corning, Lehrbuch der Topographischen Anatomie. Tillaux, Anatomie topographique.

FIRST YEAR

October

for last two weeks.

Lectures. Professor DWIGHT. Seven hours weekly. 28
Study of bones and joints. Three hours daily for first two weeks. 33
Demonstrations. Dr. Cheever. Four times a week to sections of the class for last two weeks. 12
Practical anatomy with recitations. Three hours a day, five times a week

November and December

30

Lectures. Professor Dwight. Three hours a week.

24
Demonstrations. Drs. Warren and Cheever. Four times a week to sections of the class.

24
Practical anatomy with recitations. Three hours a day, five times a week.

60

January

Lectures and demonstrations. Dr. Warren. Daily. 24
Demonstrations. Dr. Cheever. Four times a week to sections of the class. 24
Practical anatomy with recitations. Three to six hours a day, five times a week. 80
Demonstrations and study of the brain and organs of sense. Three hours a day, five times a week for two and a half weeks. 40

Comparative Anatomy

Charles S. Minot, S.D., Ll.D., D.Sc., James Stillman Professor of Comparative Anatomy.

FREDERIC T. LEWIS, M.D., Assistant Professor of Embryology.

JOHN L. BREMER, M.D., Demonstrator of Histology.

LEONARD W. WILLIAMS, Ph.D., Instructor in Comparative Anatomy.

LUTHER D. SHEPARD, Jr., M.D., D.M.D., Instructor in Dental Histology.
RICHARD E. SCAMMON, Ph.D., Instructor in Histology and Embryology.

Franklin P. Johnson, A.B., Austin Teaching Fellow in Histology and Embryology.

LABORATORY

The laboratory comprises the whole southeast wing of the new Morgan Anatomical Building. There are unit rooms for class work, each of which measures twenty-three by thirty feet, well lighted, and thoroughly equipped. Each unit room is designed for twenty-four elementary or twelve advanced students. There is a large library which contains complete files of the most important anatomical and morphological journals, together with many standard works of reference, and in an adjoining room there is a collection of about eight thousand pamphlets. A card catalogue and a classified bibliography give ready access to the literature.

The laboratory offers exceptional facilities for all kinds of work in human histology and embryology, and in comparative anatomy.

The Embryological Collection is a unique feature of the laboratory. It comprises over fifteen hundred series of sections of carefully selected vertebrate embryos, and affords therefore opportunities for research in comparative embryology such as cannot be found elsewhere. The collection includes fifty series of sections from human embryos, several of which are of exceptional value, among them being two of the very youngest stages of man yet known.

REGULAR COURSES

First Year. — This course is intended to teach the normal histology of the human body. It deals with the cells, tissues, and organs from the developmental standpoint. After a brief consideration of the cell, the fertilization and segmentation of the ovum are taken up as an introduction to the study of the chick embryo of 36 hours and the pig embryo of 20 days. In this work special stress is laid on the origin and growth of the different organs. During the remainder of the course the various tissues

and organs are studied in succession, special attention being given to organogeny. With the work on the uterus, the human placenta and fetal membranes are given special emphasis.

Microscope and Laboratory Fees. — Every student is advised to purchase a microscope, but microscopes may be rented for four dollars a term, or five dollars for the whole first-year work. Each regular medical student is charged a laboratory fee of three dollars.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 54.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Stöhr's Histology, 6th edition, edited by F. T. Lewis. Minot, Laboratory Text-book of Embryology.

Collateral Reading. — Kölliker, Gewebelehre. Minot, Human Embryology. Hertwig, Handbuch der Entwickelungslehre der Wirbeltiere.

FIRST YEAR

October, November, December	14	HOURS
Lectures. Professor Minot, Dr. Bremer, Dr. Lewis.	One	half-hour
five times a week.		30
Laboratory work. Three and one-half hours five times a u	week.	210
Oniz. Two hours once a week.		24

INVESTIGATION

Special accommodations are furnished in the laboratory for students who wish to pursue special or advanced work. Special facilities are offered to original investigators, who will receive such personal aid as may be necessary or advantageous.

A special course in vertebrate embryology is given during the second term; this has been accepted by the Faculty of Arts and Sciences, and is open to students of the academic departments.

Physiology

Walter B. Cannon, M.D., George Higginson Professor of Physiology. Ernest G. Martin, Ph.D., Instructor in Physiology. Edward B. Meigs, M.D., Instructor in Physiology. Roy G. Hoskins, A.M., Teaching Fellow in Physiology.

EUGENE L. PORTER, A.M., Austin Teaching Fellow in Physiology.

First Year. — The instruction in Physiology is based, as far as possible, on observations made by the students in laboratory experiments. The experiments are selected to impress the student with the methods and the most important facts in the various divisions of the subject. Physiological processes not readily observed in the laboratory the student learns with an insight derived from practical experience in experimentation. The arrangement of the experiments is in general such that the student first learns of what activity an organ or tissue is capable, next how certain factors condition or modify that activity, and finally what may be the effect of the activity. The experiments have also been so arranged as to place those with more general bearing first, and those with special interest later. Thus reference to previously acquired information becomes more and more possible as the course proceeds.

The amount of time devoted to laboratory exercises is approximately two hundred hours. Each student is required to preserve a record of his experiments and observations in a laboratory note-book. These records are examined and criticised from day to day.

Observations of his own experiments by the student are supplemented by more than thirty special demonstrations. These exercises, some of which are performed by students under the direction of an assistant, are closely correlated with the other objective instruction. The function of the depressor nerve, motor localization in the cerebral cortex, the action of secretin and of enterokinase, and the effects of lymphagogues are examples of subjects which are demonstrated.

The facts observed in the laboratory and in the demonstrations are discussed in lectures and theses. The lectures, about ninety in number, are informal discussions permitting questions by the students or by the instructor. In these discussions the laboratory experiments are correlated with one another and with the body of physiological knowledge. Supplementing the lectures are the theses. A thesis based upon reading of the records of original investigations is required of each student. Bowditch Library of Physiology and Biological Chemistry, containing about four thousand volumes and about twelve thousand reprints, is open to students for reference and reading. There is insufficient time for presenting before the class all the theses written each year. Certain theses of special importance in relation to the regular instruction, between forty-five and fifty in number, are chosen to be presented. In each case two students beside the reader of the thesis are selected to be prepared in some phase of the literature of the subject. These students, after the reading of the thesis, lead the discussion, which is continued by members of the class and the staff. Among the theses read publicly during the past academic year were: Theories of muscular contractility, Color-blindness,

Heart-block, Haemolysis, Physiological economy of nutrition, Natural defenses of the organism.

In order that students shall review the work repeatedly as the course proceeds, and also that the instructors may judge the efficiency of the teaching, the class is divided into sections and quizzed orally every week by the instructing staff. At the end of each general division of the subject, as, for example, the nervous system, or the circulation, a written test is given. Usually five questions are asked; as examples the following are illustrative: What are the effects of stimulating the vasoconstrictor nerves of any particular organ? Cite morphological and physiological evidence for segmental arrangement of the nervous system. Discuss cortical localization. The examination books are returned, corrected, to the students.

If in the quizzes and tests many students show that certain points are not clearly understood, these points are briefly discussed again before the class. If a student reveals by his answers general failure to grasp the subject intelligently, he is personally conferred with regarding the character of his work. Such conferences are held after the first six weeks of the course, and usually result in a better understanding between the instructor and the student, and frequently in a marked improvement in the student's efforts.

Fourth Year. — For a description of the fourth-year courses offered in this department, see p. 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — No special text-book is required, but the following books are recommended for reading in connection with the course: Text-book of Physiology, edited by E. A. Schäfer. Howell, Text-book of Physiology. Tigerstedt, Text-book of Physiology. Hermann, Lehrbuch der Physiologie. Nagel, Handbuch der Physiologie.

FIRST YEAR (Second half) HOURS

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Laboratory experiments. Professor Cannon, Drs. Martin and Meigs, and Messrs. Hoskins and Porter. Daily. 210
Quizzes (15). One hour Saturdays. 15
Written tests (8). One hour Mondays. 8
Lectures (90). Professor Cannon, and Drs. Martin and Meigs. 90
Special demonstrations (32). Professor Cannon, and Drs. Martin and Meigs. 16

Thesis. Written by each student from the original sources.

Discussion of Theses (50).

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

INVESTIGATION

Any student, properly qualified, who desires to engage in physiological research will be welcomed into the laboratory and will be offered every facility for research which the laboratory affords.

Comparative Physiology

- WILLIAM T. PORTER, M.D., LL.D., Professor of Comparative Physiology.
- I. Physiological Research. Students qualified for research will pursue their investigations under the immediate direction of Professor W. T. PORTER.
- II. Comparative Physiology of Muscle. Professor Porter. Three hours weekly during February and March.
- III. Physiological Conference. Professor Porter. Demonstrations with informal discussions of selected problems in physiology. Mondays and Thursdays, 5 to 6 p.m., throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see p. 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Biological Chemistry

Otto Folin, Ph.D., Hamilton Kuhn Professor of Biological Chemistry.

Lawrence J. Henderson, M.D., Instructor in Biological Chemistry.

Harry W. Goodall, M.D., Assistant in Biological Chemistry.

WALTER R. BLOOR, A.M., Assistant in Biological Chemistry.

Chauncey J. V. Pettibone, S.B., Research Assistant in Biological Chemistry.

CHESTER J. FARMER, Teaching Fellow in Biological Chemistry.

Archibald B. Macallum, M.B., Austin Teaching Fellow in Biological Chemistry.

FIRST YEAR

Biochemistry 1. — The lectures in this course consist of a brief discussion of the theories of chemical constitution and a survey of those classes of chemical substances which are to be found in animals and plants, by Dr. Henderson; and of the general principles and more important facts of Chemical Physiology and Pathology, by Professor Folin.

The laboratory practice is designed to acquaint the student with some of the more important constituents of living matter and their chemical behavior, and with some of the routine methods of Biochemical investigation.

Conferences and discussions of selected topics supplement the main work of the course.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 55.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

FIRST YEAR (Second half)

HOURS

Lectures. Professor Folin and Dr. Henderson. One hour five times a week.

Laboratory work. Professor Folin, and Drs. Henderson and Macallum, and Messrs. Bloor and Farmer. Two and one-half hours five times a week.

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Bacteriology

HAROLD C. ERNST, M.D., Professor of Bacteriology.

LANGDON FROTHINGHAM, M.D.V., Instructor in Bacteriology.

CALVIN G. PAGE, M.D., Assistant in Bacteriology.

Henry J. Perry, M.D., Assistant in Bacteriology.

ARTHUR M. WORTHINGTON, M.D., Assistant in Bacteriology.

Eugene E. Everett, M.D., Assistant in Bacteriology.

Edward N. Tobey, M.D., Assistant in Bacteriology.

CLEAVELAND FLOYD, M.D., Austin Teaching Fellow in Bacteriology.

Second Year.— Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. - Muir and Ritchie. Abbott. Park.

 $Collateral\ Reading.$ — Sternberg. Heim. Migula. Kolle and Wassermann.

SECOND YEAR

HOURS

Lectures. Professor Ernst. Daily, except Saturdays, during October and November. 40

Laboratory work. Professor Ernst, and Drs. Frothingham, Page,
Perry, Worthington, Everett, and Tobey. Two to three hours
daily during October and November.

Pathology.

WILLIAM T. COUNCILMAN, M.D., LL.D., Shattuck Professor of Pathological Anatomy.

FRANK B. MALLORY, M.D., Associate Professor of Pathology.

JAMES H. WRIGHT, M.D., Sc.D., Assistant Professor of Pathology.

ELMER E. SOUTHARD, M.D., Bullard Professor of Neuropathology.

ERNEST E. TYZZER, M.D., Assistant Professor of Pathology.

Frederick P. Gay, M.D., Instructor in Pathology.

LAWRENCE J. RHEA, M.D., Instructor in Pathology.

FREDERICK H. VERHOEFF, M.D., Instructor in Ophthalmic Pathology. Herman M. Adler, M.D., Assistant in Pathology and in Neuropathology.

F. Robertson Sims, M.D., Assistant in Neuropathology.

SAMUEL R. HAYTHORN, M.D., Assistant in Pathology.

ERNEST T. F. RICHARDS, M.D., C.M., Assistant in Neuropathology.

Second Year. — The course in Pathology consists of laboratory work, demonstrations, conferences, and lectures. During the forenoons of October and November a course in general pathology is given. The basis of the work is formed by a laboratory course in which microscopic work is combined with demonstrations and examinations of gross specimens. A lecture with stereopticon demonstrations is given daily at the end of the exercises in order to explain more fully the lesions studied in the laboratory.

During the forenoons of December and of the first and second weeks of January the work consists chiefly of the study and diagnosis of tissues from post-mortem examinations. So far as possible all the organs from a cadaver are demonstrated together, and the relation of the lesions explained. The organs are examined by the naked eye, and microscopically in frozen sections. Tumors and other pathological products are examined in the same way. Lectures and laboratory talks are given daily.

In the forenoons of the second and third weeks of December, Professor T. Smith gives a course of lectures and laboratory exercises on animal parasites, particularly the protozoa and the infections produced by them.

During the afternoons of December and January two courses are given in the special pathology of neurology and surgery; the courses constitute a valuable introduction to the clinical work required in these subjects in the third year.

These courses are: -

- (a) Fifteen demonstrations and laboratory exercises on the pathology of the nervous system. (See Neurology.)
- (b) Twenty laboratory exercises in surgical pathology. (See Surgery.) Fourth Year. For a description of the fourth-year courses offered in this department, see page 56.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for Graduates.

Text-books. — Ziegler, General and Special Pathology. Stengel, A Text-book of Pathology. Mallory and Wright, Pathological Technique. Collateral Reading. — Thoma, Pathologische Anatomie. Orth, Pathologische Anatomie; Diagnostik. Ribbert, Pathologische Histologie, Lehrbuch der Allgemeinen Pathologie. Lubarsch and Ostertag, Ergebnisse der Pathologie und Anatomie. Neveu-Lemaire, Parasitologie ani-

SECOND YEAR

male. Braun, The Animal Parasites of Man.

HOURS

Lectures. Professors Councilman and Mallory. Daily for fourteen weeks, October, November, December (jirst week only), and January

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Lectures. Professor T. Smith. One hour daily, second and third weeks of December.

Laboratory work. Professor Councilman, and Drs. Gay, Rhea, and Haythorn. Three hours daily during the forenoons of October, November, December (first week only), and January. 252

Demonstrations and laboratory work. Professor T. Smith. Two hours daily, second and third weeks of December. 24

Neuropathology. Professor Southard. Afternoons in December. 45 Surgical pathology. Asst. Professor Nichols. Afternoons in January. 60

Legal Medicine

George B. Magrath, M.D., Instructor in Legal Medicine.

Second Year. — Demonstrations in the Autopsy Rooms of the North District Morgue and of the Massachusetts General Hospital, such demonstrations to be given during the forenoons of the first half-year to sections assigned by the Pathological Department upon notification from Dr. Magrath.

Fourth Year. — For a description of the fourth-year course offered in this department, see p. 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Comparative Pathology

Theorald Smith, M.D., I.L.D., George Fabyan Professor of Comparative Pathology.

ERNEST L. WALKER, S.D., Assistant in Medical Zoölogy.

Marshal Fabyan, M.D., Assistant in Comparative Pathology.

Harold Bowditch, M.D., Austin Teaching Fellow in Comparative Pathology.

Second Year. — A short course on the pathogenic protozoa and higher animal parasites is given in January as a part of the course in Pathology (see above).

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 57.

Graduate Courses.— For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

SECOND YEAR

HOURS

Lectures. Professor T. Smith. (H.M.S.) One hour daily, second and third weeks of December. 12

Demonstrations and laboratory work. Professor T. Smith, and Drs. Rhea and Fabyan. Two hours daily, second and third weeks of December.

Preventive Medicine and Hygiene

MILTON J. ROSENAU, M.D., Professor of Preventive Medicine and Hygiene.

ARTHUR I. KENDALL, Ph.D., Instructor in Preventive Medicine and Hygiene.

Harold L. Amoss, S.M., Assistant in Preventive Medicine and Hygiene.

Donald Gregg, M.D., Charles Follon Folsom Teaching Fellow in Hygiene.

Second Year. — The instruction consists of lectures and demonstrations. Fourth Year. — For a description of the fourth-year course offered in this department, see page 58.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. - Harrington, Practical Hygiene.

Collateral Reading. — Notter, Hygiene. Manson, Tropical Diseases. Newsholme, Vital Statistics. Mason, Water Supply. Rosenau, Disinfection and Disinfectants.

SECOND YEAR

HOURS

Lectures and demonstrations. Professor Rosenau and assistants. Three times a week, second half-year.

Materia Medica and Therapeutics

Franz Pfaff, M.D., Professor of Pharmacology and Therapeutics.

Maurice V. Tyrode, M.D., Instructor in Pharmacology.

David L. Williams, M.D., Assistant in Materia Medica.

Second and Third Years. — Instruction is given by lectures and recitations, and by demonstrations of the physiological action of drugs. The lectures are supplemented by an optional practical course, where students have an opportunity of studying the physical characteristics and physiological action of some of the important drugs upon frogs, and also of compounding a few typical prescriptions and of observing some of the chief incompatibilities. In addition to the lectures on therapeutics, the practical relation of remedies to diseased conditions is dwelt on in the exercises in the departments of Theory and Practice, and of Clinical Medicine.

A special laboratory has been equipped for original research in Experimental Pharmacology and Therapeutics; here a voluntary course, open to a limited number of duly qualified undergraduates, affords opportunity for practical training and instruction in the methods and use of the special apparatus employed in determining the toxic and physiological action of drugs, and their practical value as remedies.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 59.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. - A. R. Cushny, Pharmacology and Therapeutics.

Collateral Reading. — Schmiedeberg, Arzneimittellehre. Binz, Vorlesungen ueber Pharmacologie. H. C. Wood, Therapeutics. Brunton, Pharmacology, Materia Medica, and Therapeutics.

SECOND YEAR HOURS

Pharmacology lectures. Professor Pfaff. Twice a week, February to May inclusive. 32

Materia Medica lectures. Dr. Tyrode. Once a week, February to May inclusive.

Voluntary laboratory work. Dr. Tyrode. Three hours once a week during April and May.

THIRD YEAR HOURS

Lectures on Therapeutics. Professor Pfaff. Once a week, first halfyear.

The Theory and Practice of Physic

HENRY A. CHRISTIAN, M.D., Hersey Professor of the Theory and Practice of Physic.

ELLIOTT P. JOSLIN, M.D., Instructor in the Theory and Practice of Physic.

ARTHUR K. STONE, M.D., Instructor in the Theory and Practice of Physic.

HENRY F. Hewes, M.D., Instructor in the Theory and Practice of Physic.

George S. C. Badger, M.D., Instructor in the Theory and Practice of Physic.

Joseph H. Pratt, M.D., Instructor in the Theory and Practice of Physic.

Charles L. Overlander, M.D., Assistant in the Theory and Practice of Physic.

THOMAS F. LEEN, M.D., Assistant in the Theory and Practice of Physic.

Francis W. Palfrey, M.D., Alumni Assistant in the Theory and Practice of Physic.

WILLIAM B. ROBBINS, M.D., Assistant in the Theory and Practice of Physic.

CHANNING FROTHINGHAM, Jr., M.D., Assistant in the Theory and Practice of Physic.

ROGER I. LEE, M.D., Assistant in the Theory and Practice of Physic.
RICHARD M. SMITH, M.D., Assistant in the Theory and Practice of Physic.

The instruction given by the Department of the Theory and Practice of Physic consists of both clinical and laboratory work. The clinical work is given by means of lectures, clinical lectures and clinical exercises at the Massachusetts General Hospital, the Boston City Hospital, the Carney Hospital, or the House of the Good Samaritan. The laboratory work is given at the Harvard Medical School in the laboratory of the Department. The laboratories are equipped for teaching routine clinical laboratory methods to the entire class, as well as for carrying on clinical or experimental medical research. Both kinds of work are offered to both undergraduate and graduate students.

Second and Third Years. — Lectures. Lectures on selected topics are given at the Medical School.

Clinical Lectures. — Clinical lectures in which the students are called upon to take an active part are given at the Massachusetts General Hospital.

Clinical Exercises. — Small sections of the class will be drilled in the larger hospitals and clinics in the taking of histories and in the examination of urine, blood, sputum, and gastric contents.

Laboratory. — Students will be instructed and exercised in the chemical, microscopical, and bacteriological methods used in the practice of medicine. It is expected that each student by frequent opportunity will attain the necessary proficiency to enable him to utilize these methods in the diagnosis and prognosis of disease.

Fourth Year.—For a description of the fourth-year courses offered in this department, see page 59.

Graduate Courses.— For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Osler, Practice of Medicine. Von Leube, Diagnose der Inneren Krankheiten. Emerson, Clinical Diagnosis. Sahli, Diagnostic Methods.

Collateral Reading. — Nothnagel, Specielle Pathologie und Therapie. Allbutt, System of Medicine. Kolle und Weintraud, Die Deutsche Klinik. Osler, Modern Medicine. Krehl, Principles of Clinical Pathology. Schwalbe, Therapeutische Technik. Gould, Medical Dictionary.

SECOND YEAR

HOURS

Lectures on selected topics. Professor Christian. (H.M.S.) Twice a week, second half-year.

Clinical lectures. Dr. Badger. (M.G.H.) Once a week, second half-

year.

Exercises in sections. Drs. Joslin (B.C.H.), Badger and Palfrey (M.G.H.), Stone and Lee (M.G.H. and S.H.). Twice a week, second half-year, for each student.

Laboratory exercises. Dr. Hewes, assisted by Drs. Overlander, Robbins, and ——. Five times a week, second half-year.

THIRD YEAR

HOURS

Lectures on selected topics. Professor Christian. (H.M.S.) Twice a week, first half-year.

Clinical lectures. Dr. Pratt. (M.G.H.) Once a week, first half-year; once a week, second half-year. 32

Clinical lectures. Dr. Hewes. (M.G.H.) Once a week, first halfyear. 16

Clinical lectures. Drs. Stone, Lord, or Lee. (M.G.H.) Once a week, first half-year.

Exercises in sections. Drs. Stone and Lee. (M.G.H. and S.H.)

First half-year. Twelve exercises for each student. 18

Clinical Medicine

FREDERICK C. SHATTUCK, M.D., LL.D., Jackson Professor of Clinical Medicine.

George G. Sears, M.D., Assistant Professor of Clinical Medicine.

RICHARD C. CABOT, M.D., Assistant Professor of Clinical Medicine.

HERMAN F. VICKERY, M.D., Instructor in Clinical Medicine.

Henry Jackson, M.D., Instructor in Clinical Medicine.

James M. Jackson, M.D., Instructor in Clinical Medicine.

FRANKLIN W. WHITE, M.D., Instructor in Clinical Medicine.

WILLIAM H. ROBEY, Jr., M.D., Instructor in Clinical Medicine.

WILLIAM H. SMITH, M.D., Instructor in Clinical Medicine.

EDWIN A. LOCKE, M.D., Instructor in Clinical Medicine.

FREDERICK T. LORD, M.D., Instructor in Clinical Medicine.

GERALD BLAKE, M.D., Assistant in Clinical Medicine.

GEORGE C. SHATTUCK, M.D., Alumni Assistant in Clinical Medicine.

The study of Clinical Medicine begins with the second half of the second year. Daily instruction is given by clinical lectures, hospital visits, and other exercises.

Second Year. — The following courses continue during the second half-year.

Physical diagnosis for the class in small sections. Every student attends two exercises a week. Credit is given for the character of the work done in this course on the basis of twenty-five per cent. of the total mark in Clinical Medicine.

Clinical instruction for the entire class, twice a week, in diagnostic methods, diagnosis, and treatment.

Third Year. — Four exercises a week are held in the hospital amphitheatres. The teaching is more advanced, with greater stress on therapeutics. The amount of clinical material is so large that during the year a wide range of diseases is illustrated practically. Even of the rarer affections often several examples are shown.

Supplementary instruction is given to the class in small sections, in the ward and out-patient departments. Each student attends thirty-two exercises during the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 60.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. — Osler, Practice of Medicine. Strümpell, Text-book of Medicine. Musser, Medical Diagnosis. Simon, Clinical Diagnosis. Cabot, Physical Diagnosis. Forchheimer, Prophylaxis and Treatment of Internal Disease.

Collateral Reading. — Allbutt, System of Medicine. Osler's Modern Medicine. Nothnagel, Specielle Pathologie und Therapie. Fagge and Pye-Smith, Practice of Medicine. Gowers, Diseases of the Nervous System. Butler, Diagnostics of Internal Medicine. Le Fevre, Physical Diagnosis. Sahli, Diagnostic Methods. Emerson, Clinical Diagnosis.

SECOND YEAR

HOURS

Clinics. Professor Shattuck (M.G.H.) and Dr. H. Jackson (B.C.H.).

Twice a week, second half-year.

Physical Diagnosis. Drs. J. M. Jackson and Lord (M.G.H.) and Dr. Robey (B.C.H.). Two exercises a week, second half-year, for each student.

THIRD YEAR

HOURS

Clinics. Professor Shattuck. (M.G.H.) Twice a week, first half-year; once a week, second half-year. 48

Assistant Professor Sears. (B.C.H.) Twice a week, first half-year; once a week, second half-year. 48

Dr. H. Jackson. (B.C.H.) Twice a week, second half-year. 32
Section work. Assistant Professors Sears and Cabot, Drs. Vickery,
H. Jackson, and Smith. Thirty-two exercises for each student
throughout the year. 48

Tropical Medicine

Theobald Smith, M.D., George Fabyan Professor of Comparative Pathology, will supervise the instruction in Tropical Medicine. Courses which are intimately related to this field of medicine will be found under Pathology, Bacteriology, and Clinical Medicine.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 61.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Pediatrics

THOMAS MORGAN ROTCH, M.D., Professor of Pediatrics.

JOHN H. McCollom, M.D., Professor of Contagious Diseases.

John L. Morse, M.D., Assistant Professor of Pediatrics.

Maynard Ladd, M.D., Instructor in Pediatrics.

CHARLES H. DUNN, M.D., Clinical Instructor in Pediatrics.

Henry I. Bowditch, M.D., Assistant in Pediatrics.

WILLIAM P. LUCAS, M.D., Assistant in Pediatrics.

Edwin H. Place, M.D., Assistant in Pediatrics.

Philip H. Sylvester, M.D., Assistant in Pediatrics.

Third Year. - Lectures are given on such selected topics as the derelopment and living anatomy of early life, diphtheria, the exanthemata and the dietetics of early life. Special instruction in the use and dispensing of food stuffs in a research milk laboratory and in gastro-enteric diseases preparatory for the clinical teaching are given early in the year. Clinical lectures are given at the Chidren's Hospital and at North Grove Street; and the students are required to take an active part in the examination and discussion of the cases. Recitations are given on subjects selected as being best studied in this way, and exercises in case-teaching are given in the latter part of the year preparatory for the examination. Sectional teaching at the bedside both at the Infants' and Children's Hospitals is given throughout the year and comprises a large proportion of the year's instruction. Bedside instruction and clinical lectures are given at the South Department of the Boston City Hospital where the students are shown and examine cases of diphtheria, the acute exanthemata and any other contagious diseases which happen to be in the hospital. According as the opportunity arises, the students are instructed in the technique of intubation. The general subject of Pediatrics as connected with contagious diseases is especially explained and illustrated by the resident assistant in Pediatrics. From time to time in the wards of the Children's Hospital the students are given instruction in connection with blood cultures and with lumbar puncture. In all clinical and sectional teaching especial attention is paid to clinical therapeutics.

Fourth Year. — For a description of the fourth-year course offered in

this department, see page 62.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — Rotch, Pediatrics.

Collateral Reading.—Pfaundler and Schlossmann, The Diseases of Children. Northrup, American Edition of The Diseases of Children, by Ashby and Wright. Jacobi, Therapeutics of Infancy and Childhood. Holt, Diseases of Infancy and Childhood. Sachs, The Nervous Diseases of Children.

THIRD YEAR.

HOURS

Lectures. Professor Rotch. (H.M.S.) Once a week, October 7 to December 2; January 6 to 27; February 1 to March 29. 20
Assistant Professor Morse. (H.M.S.) Once a week, February 7 to March 21. 7
Dr. Edwin H. Place. (H.M.S.) December 9 and 16. 2
Clinical lectures. Professor Rotch. (Ch.H.) Once a week, October 1 to January 21. 15
Professor McCollom. (S.D.B.C.H.) October, November, December. 8

Professor McCollom. (S.D.B.C.H.) October, November, December. 8
Assistant Professor Morse. (North Grove St.) Once a week, January
28 to March 11.

Recitations. Assistant Professor Morse. (H.M.S.) Once a week, March 18 and 25; April 25 and 26; May 10 and 17. 6 4

Dr. LADD. (H.M.S.) Twice a week, April 4 to 12.

Case Teaching. Dr. Dunn. (H.M.S.) Twice a week, May 2 to 10. Assistant Professor Morse. (H.M.S.) May 23 to 31. 3

Section Teaching. Dr. Place. (S.D.B.C.H.) In sections, first-half year. Six exercises for each student.

Drs. Ladd, Dunn, Bowditch, Lucas, and Sylvester. (Ch.H. and I.H.) Each student attends twenty-one exercises throughout the year.

Roentgen Ray.

Walter J. Dodd, M.D., Instructor in the Use of the Roentgen Ray. PERCY BROWN, M.D., Assistant in the Use of the Roentgen Ray. ARIAL W. GEORGE, M.D., Assistant in the Use of the Roentgen Ray.

Lectures and demonstrations in the use of the Roentgen Ray will be given in connection with all of the departments of the School when such instruction is desired by the head of the individual department, and provided arrangements can be made for such instruction with the Instructor in the Use of the Roentgen Ray.

Fourth Year. - For a description of the fourth-year courses offered in this department, see page 61.

Graduate Courses. - For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Surgery.

The Division of Surgery is composed of the departments of surgery, clinical surgery, orthopedic surgery, and surgical pathology.

MAURICE H. RICHARDSON, M.D., Moseley Professor of Surgery.

HERBERT L. BURRELL, M.D., John Homans Professor of Surgery.

EDWARD H. NICHOLS, M.D., Assistant Professor of Surgical Pathology.

CHARLES A. PORTER, M.D., Assistant Professor of Surgery.

James G. Mumford, M.D., Instructor in Surgery.

JOHN B. BLAKE, M.D., Instructor in Surgery.

Howard A. Lothrop, M.D., Instructor in Surgery.

ROBERT B. GREENOUGH, M.D., Instructor in Surgery.

Paul Thorndike, M.D., Instructor in Genito-Urinary Surgery.

SAMUEL J. MIXTER, M.D., Lecturer on Surgery.

George H. Monks, M.D., M.R.C.S., Lecturer on Surgery.

FRANCIS S. WATSON, M.D., Lecturer on Genito-Urinary Surgery.

Francis B. Harrington, M.D., Lecturer on Surgery.

CHARLES L. SCUDDER, M.D., Lecturer on Surgery.

FRED B. LUND, M.D., Lecturer on Surgery.

WILLIAM E. FAULKNER, M.D., Assistant in Surgery.

James S. Stone, M.D., Assistant in Surgery.

Ernest A. Codman, M.D., Assistant in Surgery.

Joshua C. Hubbard, M.D., Assistant in Surgery.

Daniel F. Jones, M.D., Assistant in Surgery.

Le Roi G. Crandon, M.D., Assistant in Surgery.

Walter C. Howe, M.D., Assistant in Surgery.

Robert Soutter, M.D., Assistant in Orthopedics.

Robert B. Osgood, M.D., Assistant in Orthopedics.

Channing C. Simmons, M.D., Assistant in Surgery.

David D. Scannell, M.D., Assistant in Surgery.

Torr W. Harmer, M.D., Alumni Assistant in Surgery.

FRANK L. RICHARDSON, M.D., Austin Teaching Fellow in Surgery.

Instruction is given by systematic lectures, surgical anatomy lecture demonstrations, recitations, lecture demonstrations, clinical lecture demonstrations, and by section teaching in the wards, in the out-patient departments, and in the laboratory.

Second and Third Years. — A course in surgical pathology, consisting of laboratory exercises, in which are studied the healing of wounds, fractures, diseases of bones and joints, and the special pathology which is of surgical importance, is given in the month of January. A series of clinical lectures, illustrating the lesions studied in this course in the laboratory, is given at the Boston City Hospital. During the second half of the second year and in the first half of the third year the instruction consists of systematic lectures, recitations, demonstrations of surgical pathological material, and clinical demonstrations. Every week the student has four lectures, demonstrations or recitations, and four clinical exercises illustrating the lectures, demonstrations and recitations. In the first week the systematic lectures are given on surgical technique; in the second week on surgical materials and case-taking; in the third week on trauma, hemorrhage, sepsis, etc. The various subjects in surgery are taken up in successive weeks and illustrated contemporaneously by clinical lectures and demonstrations, until the end of the first half of the third year. During the whole course surgical anatomy lectures will be given on special subjects in surgery. As early as may be in the second half of the second year, the course in surgical technique is given. It consists of six hours of lectures to the entire class, and of twelve laboratory exercises, of two hours each, to the class in sections. The laboratory course consists of the application of bandages and surgical apparatus, and of the preparation and application of surgical dressings and materials by the students.

After the course in surgical technique the student is required to serve satisfactorily at least one month in the surgical out-patient department of the Massachusetts General Hospital or the Boston City Hospital. All the students will be assigned to serve one month during the year beginning June 1, 1910, at one or other of these hospitals. In the first half of the third year the student receives instruction in the surgical wards of the Massachusetts General and Boston City Hospitals, and also receives instruction in anesthesia. In this section teaching students have instruction on a number of selected subjects in major surgery, are brought into personal contact with the patient at the bedside, and have practical experience in the diagnosis, prognosis, and treatment of surgical cases.

A required course in genito-urinary surgery is given in the first half of the third year, consisting of eight lectures. In the second half of the third year the class is divided into small sections, and each student receives instruction for six hours in the out-patient departments in the details of minor genito-urinary work.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 62.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Books recommended. — DaCosta, Modern Surgery. Rose & Carless, Manual of Surgery. Park's Modern Surgery. Lexer-Bevan, General Surgery. Keen's Surgery, 5 vols. von Bergmann and W. T. Bull, System of Surgery, 5 vols. Warren's Surgical Pathology. Cheever, Lectures on Surgery. Bryant's Operative Surgery. Binnic's Operative Surgery. Jacobson & Steward, Operative Surgery. Stimson, Fractures and Dislocations. Scudder, Treatment of Fractures. Wharton, Minor Surgery and Bandaging. Mumford, Clinical Talks on Minor Surgery. Burrel and Blake, Case Teaching. Watson and Cunningham, Diseases and Surgery of the Genito-Urinary System. Keyes, Surgical Diseases of the Genito-Urinary Organs. White and Martin, Genito-Urinary and Venereal Diseases.

SECOND YEAR

HOURS

Laboratory course in Surgical Pathology. Assistant Professor Nichols.

(H.M.S.) Twenty three-hour exercises during January. (See Pathology.)

Clinical lectures in connection with the above course. Assistant Professor Nichols. (B.C.H.) Twelve exercises during January. 12

Laboratory course in Surgical Technique. Dr. Lothrop. Six lectures to the entire class. 6

Twelve two-hour exercises for each student during second half of second year. 24

Systematic lectures, surgical anatomy lecture demonstrations, demonstrations, and recitations. Professors Richardson and Burrell, and Drs. Lothrop and Greenough. (H.M.S.) Four times a week. 64

Clinical demonstrations in connection with the above lectures. Professor RICHARDSON (M.G.H.), Professor BURRELL, and Drs. J. B. BLAKE and LOTHROP (B.C.H.). Four times a week.

THIRD YEAR

HOURS

Systematic lectures, surgical anatomy lecture demonstrations, demonstrations, and recitations. Professors Richardson and Burrell. (H.M.S.) Three times a week, first half-year. 48

Clinical demonstrations in connection with above lectures. Professors RICHARDSON (M.G.H.) and BURRELL (B.C.H.). Twice a week, first half-year.

Clinical lectures. Assistant Professor C. A. Porter. (M.G.H.) Once a week, second half-year.

Professor Burrell and Dr. Monks. (B.C.H.) Twice a week, second half-year. 32

Clinical exercises in surgical wards. Professor Richardson, and Drs. Harrington, Lothrop, Codman, Lund, and Crandon. Each student attends sixteen exercises, first half-year.

Lectures. Genito-Urinary Surgery. Dr. Paul Thorndike. (H.M.S.)

Once a week for eight exercises in October and November. 8

Section teaching at the Hospitals. Each student attends six exercises, second half-year.

Case Teaching. Dr. J. B. Blake. (H.M.S.) Once a week, beginning March I.

Orthopedics

EDWARD H. BRADFORD, M.D., Professor of Orthopedic Surgery.

Robert W. Lovett, M.D., Assistant Professor of Orthopedic Surgery.

Elliott G. Brackett, M.D., Instructor in Orthopedics.

AUGUSTUS THORNDIKE, M.D., Instructor in Orthopedics.

ROBERT SOUTTER, M.D., Assistant in Orthopedics.

ROBERT B. OSGOOD, M.D., Assistant in Orthopedics.

Third Year. — Orthopedic Surgery is taught in the first half of the third year and consists of a series of lectures and demonstrations at the Medical School, and of clinical exercises at the Children's and Massachuset.s General Hospitals.

Fourth Year. — For a description of the fourth-year courses offered by this department, see page 63.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for Graduates.

Books recommended. — Thorndike, Orthopedic Surgery. Whitman, Orthopedic Surgery. Bradford and Lovett, Orthopedic Surgery. Hoffa, Orthopädische Chirurgie.

THIRD YEAR

HOURS

Lectures and demonstrations. Orthopedic Surgery. Professor Bradford, Assistant Professor Lovett, and Drs. Brackett and A. Thorndike. (H.M.S. and Ch. H.) Three times a week, December and January.

Obstetrics and Gynaecology

- CHARLES M. GREEN, M.D., Professor of Obstetrics.
- Franklin S. Newell, M.D., Assistant Professor of Obstetrics and Gynaecology.
- Ernest B. Young, M.D., Instructor in Gynaecology.
- HOWARD T. SWAIN, M.D., Instructor in Obstetrics.
- MALCOLM STORER, M.D., Assistant in Gynaecology.
- WILLIAM P. GRAVES, M.D., Assistant in Gynaecology.
- LEO V. FRIEDMAN, M.D., Assistant in Obstetrics and Gynaecology.
- James R. Torbert, M.D., Assistant in Obstetrics.
- NATHANIEL R. MASON, M.D., Assistant in Obstetrics and Gynaecology.
- ROBERT L. DENORMANDIE, M.D., Assistant in Obstetrics:

OBSTETRICS

Third Year.—Instruction is given by lectures, recitations, conferences, and clinical teaching. Students are required to take charge of at least six cases of labor, to receive clinical instruction on at least one of them, to care for their patients during the convalescence, and to make full written reports of the cases. Many of these reports are read at the conferences and discussed by the class and the instructors.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 63.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. - J. W. Williams, A Text-book of Obstetrics.

Collateral Reading. — Peterson, The Practice of Obstetrics. Reynolds and Newell, Practical Midwifery. Lusk, The Science and Art of Midwifery. Jellett, Manual of Midwifery.

THIRD YEAR

HOURS

- Lectures on the Theory and Practice of Obstetrics. Professor Green.

 (H.M.S.) Twice a week.
- Recitations. Assistant Professor Newell. (H.M.S.) Once a week. 32 Conferences. Professor Green, Assistant Professor Newell, and Drs.

Swain, Friedman, Torbert, Mason, and DeNormandie. (H.M.S.)
Once a week.

32

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Practical instruction in Clinical Obstetrics. Drs. Swain, Friedman, Torbert, Mason, and Denormandie. Throughout the year, i.e., every student must receive instruction on one of the cases of labor which he attends, and may ask for instruction on his other cases, if he desires.

GYNAECOLOGY

Third Year. — Instruction is given by lectures, recitations, and clinical teaching. Clinics are held in the out-patient departments of the Boston City Hospital, the Boston Dispensary, and the Free Hospital for Women, and the student is instructed in diagnosis, and in the treatment of ambulatory cases.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 64.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book. — Dudley, Principles and Practice of Gynaecology.

Collateral Reading. — Hirst, Text Book of Diseases of Women. Davenport, Diseases of Women. Winckel, Diseases of Women. Emmet, Principles and Practice. Byford, Manual of Gynaecology. Penrose, Textbook of Diseases of Women. Ashton, Practice of Gynaecology.

THIRD YEAR

HOURS

Lectures or recitations. Professor Green, Assistant Professor Newell, and Dr. Young. (H.M.S). Twice a week, second half-year. 32 Clinical exercises. Dr. Storer (B.D.), Dr. Graves (F.H. for W.), and Drs. Young and Mason (B.C.H.). In sections, during the second half-year. Each student attends six exercises. 9

Dermatology and Syphilis

JOHN T. BOWEN, M.D., Edward Wigglesworth Professor of Dermatology.

Abner Post, M.D., Assistant Professor of Syphilis.

Charles J. White, M.D., Instructor in Dermatology. Harvey P. Towle, M.D., Assistant in Dermatology.

C. MORTON SMITH, M.D., Assistant in Syphilis.

FREDERICK S. BURNS, M.D., Assistant in Dermatology.

DERMATOLOGY

Third Year.—A course of lectures, recitations, and demonstrations is given during October and November, and a weekly clinical exercise extends throughout the year.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 64.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Collateral Reading.—Stelwagon, Duhring, Hyde, Robinson, Crocker,

Cottateral Reading.—Stelwagon, Duhring, Hyde, Robinson, Crocker Kaposi, v. Ziemssen, Besnier, Van Harlingen, Jackson, Taylor,

THIRD YEAR

HOURS

Lectures, demonstrations, and recitations on diseases of the skin. Professor Bowen and Dr. Towle. (H.M.S.) Once a week during October and November.

Clinical Dermatology. Professor Bowen. (M.G.H.) Once a week throughout the year. 32

Clinical exercises. Drs. Towle and Burns. (M.G.H.) Each student attends eight exercises, second half-year.

SYPHILIS

Third Year. — Lectures and clinical instruction are given at the Boston Dispensary.

THIRD YEAR

HOURS

Lectures. Assistant Professor Post. (H.M.S.) Once a week, December and January.

Clinical lectures. Assistant Professor Post and Dr. Smith. (B.D.)

Once a week, April and May.

8

Clinical exercises. Assistant Professor Post and Dr. Smith. (B.D.)

Each student attends six exercises, in sections, second half-year.

Neurology and Psychiatry

James J. Putnam, M.D., Professor of Diseases of the Nervous System.

Philip C. Knapp, M.D., Clinical Instructor in Diseases of the Nervous System.

Edward W. Taylor, M.D., Instructor in Neurology.

EDWARD COWLES, M.D., LL.D., Instructor in Mental Diseases.

George T. Tuttle, M.D., Clinical Instructor in Mental Diseases.

WILLIAM NOYES, M.D., Clinical Instructor in Mental Diseases.

George A. Waterman, M.D., Assistant in Neurology.

NEUROLOGY

Second Year.—In the afternoons during December, Professor South-Ard gives a course of twelve lectures, twelve laboratory exercises, and three tests consisting of written and practical work. The lectures form an introduction to the course in neurology and psychiatry; they precede and are directly related with the laboratory work which takes up the histology of the infections and the classical degenerations of the nervous system, as well as a brief outline of the pathology of the cerebral cortex.

The histology is brought into close relation with the reflexes and other simple clinical signs. A demonstration of these reflexes and signs with their structural correlations is given at the Danvers Insane Hospital.

An optional course, entitled The Applications of Psychology to Neurology, is offered in the course of this year.

Third Year.—During the first half-year one exercise a week and during the second half-year two exercises a week are given at the Massachusetts General Hospital. The object of the course is to give the student a first-hand knowledge of the principles of diagnosis and treatment of diseases of the nervous system. The general plan of instruction is (a) Review of the anatomy of the nervous system essential to diagnosis of organic diseases; lectures and demonstrations. (b) Pathological anatomy in its relation to diagnosis; demonstrations of stained specimens and photographs. (c) Study of cases as they present themselves at the Out-Patient Department of the Hospital and in the wards. (d) Work in the Case-system. Short examinations and conferences will be held at intervals during the year. The first half-year is devoted to the study of symptoms in their clinical and anatomical relations (Dr. Taylor); the second half-year, to morbid entities with special reference to the functional neuro-psychoses (Dr. Putnam).

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 64.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-book.—Putnam and Waterman, Studies in Neurological Diagnosis.

Collateral Reading.—Oppenheim, Diseases of the Nervous System
(latest German edition). Gowers, Diseases of the Nervous System.
Dana, Text-book of Nervous Diseases (latest edition). Herter, Diagnosis of Nervous Diseases (latest revised edition). Starr, Functional and Organic Diseases of the Nervous System. Purves Stewart, Diagnosis of Nervous Diseases. Janet, The Major Symptoms of Hysteria and Les Néuroses. Sherrington, The Integrative Action of the Nervous System.
Church-Peterson's Nervous and Mental Diseases. Monakow, Gehirnpathologie. Schmaus und Sacki, Pathologie des Rückenmarks. Van Gehuchten, Les centres nerveux. Anatomie normale et elements de neuropathologie.

SECOND YEAR

TIOTIDS

Lectures. Professor Southard. One hour daily, afternoons in December. (See Pathology.)

Laboratory work. Professor Southard. Two hours daily, afternoons in December. (See Pathology.)

Written and practical tests. Professor Southard. Afternoons in December. (See Pathology.)

THIRD YEAR

HOURS

Lectures, Demonstrations, and Clinical exercises. Professor Putnam, and Drs. Taylor and Waterman. (M.G.H.) Once a week, first half-year; twice a week, second half-year.

48

PSYCHIATRY.

Third Year.—Systematic lectures are given at the Medical School during the second half-year, and clinical instruction is offered at the Boston Insane Hospital.

Text-books.—Kraepelin, Psychiatrie (English translation, Defendorf—Clinical Psychiatry). Clouston, Clinical Lectures on Mental Diseases. Folsom, Monograph in Pepper's System of Medicine. Berkley, Mental Diseases. Regis, Manual of Mental Medicine.

Collateral Reading.—Krafft-Ebing, Text-book of Insanity. Church and Peterson, Nervous and Mental Diseases. James, Psychology. Tuke, Dictionary of Psychological Medicine. Baldwin, Dictionary of Philosophy and Psychology. Hall, Adolescence.

THIRD YEAR.

HOURS

Lectures. Dr. Cowles. (H.M.S.) Once a week, second half-year. 16 Clinical exercises. Dr. Cowles. (B.S.H.) At stated intervals. 3-4

Ophthalmology.

Myles Standish, M.D., Williams Professor of Ophthalmology. Alexander Quackenboss, M.D., Instructor in Ophthalmology. Henry H. Haskell, M.D., Instructor in Ophthalmology. Edmund W. Clap, M.D., Assistant in Ophthalmology. Fred M. Spalding, M.D., Assistant in Ophthalmology.

Third Year.—Instruction consists of lectures at the Medical School and of clinical exercises devoted to diagnostic methods, diagnosis, and treatment at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 65.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. - DeSchweinitz. Fuchs. Hansell and Sweet.

Collateral Reading.—Loring, On the Ophthalmoscope. Landolt, Refraction and Accommodation. Norris and Oliver, System of Diseases of the Eye. Haab, Atlas of the External Diseases of the Eye.

THIRD YEAR.

HOURS

Lectures. Professor Standish. (H.M.S.) Twice a week, in October and November.

Clinical exercises. Drs. Jack, Quackenboss, Haskell, Clap, and Spalding. (E. and E.I.) In sections, first half-year. Twelve exercises for each student.

Otology.

CLARENCE J. BLAKE, M.D., Walter Augustus Lecompte Professor of Otology.

EUGENE A. CROCKETT, M.D., Instructor in Otology.

PHILIP HAMMOND, M.D., Instructor in Otology.

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WILLIAM F. KNOWLES, M.D., Assistant in Otology.

ALFRED M. AMADON, M.D., Assistant in Otology.

HARRIS P. MOSHER, M.D., Assistant in Otology.

DAVID H. WALKER, M.D., Assistant in Otology.

Third Year.—Lectures are given at the Medical School, and clinical instruction at the Massachusetts Charitable Eye and Ear Infirmary.

Fourth Year. — For a description of the fourth-year course offered in this department, see page 65.

Graduate Courses. — For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

Text-books. - Brühl and Politzer. Bacon.

Collateral Reading. — Politzer, Text-book of Diseases of the Ear; 4th ed., translated by Ballin and Heller. Blake and Reik.

THIRD YEAR.

HOURS

Lectures. Professor Blake. (H.M.S.) Twice a week, February and March; once a week, April and May. 24
Clinical exercises. (E. and E.I.) Every student attends ten exercises, second half-year. 15

Laryngology and Rhinology

Algernon Coolidge, Jr., M.D., Assistant Professor of Laryngology.

Frederic C. Cobb, M.D., Instructor in Laryngology.

J. PAYSON CLARK, M.D., Instructor in Laryngology.

ROCKWELL A. COFFIN, M.D., Instructor in Laryngology.

JOSEPH L. GOODALE, M.D., Instructor in Laryngology.

HARRIS P. Mosher, M.D., Instructor in Laryngology.

HARRY A. BARNES, M.D., Assistant in Laryngology.

GEORGE H. WRIGHT, D.M.D., Assistant in Laryngology.

Third Year.—Instruction consists of lectures and demonstrations, and of training in the use of instruments. The entire class has twenty-four lectures during the second half-year. For the practical work at the Massachusetts General Hospital, the Boston City Hospital, and the Boston Dispensary, the class is divided into small sections.

Fourth Year. — For a description of the fourth-year courses offered in this department, see page 66.

Graduate Courses.—For a description of the graduate courses offered in this department, see special announcement of courses for graduates.

THIRD YEAR

HOURS

Lectures. Asst. Professor Coolinge. (H.M.S.) Once a week, February and March; twice a week, April and May.

Clinical exercises. Asst. Professor Coolidge, and Drs. Clark, Goodale, Mosher (M.G.H.), Coffin (B.C.H.) and Cobb (B.D.). In sections, second half-year. Twelve exercises for each student.

Municipal Sanitation

SAMUEL H. DURGIN, M.D., Lecturer on Hygiene.

THIRD YEAR. OPTIONAL COURSE.

HOURS

Lectures. Dr. Durgin. (H.M.S.) Twice a week, February and March.

FOURTH-YEAR ELECTIVES

The electives of the fourth year are given as half-courses. A half-course occupies the entire day for one month (the all-day plan) or the forenoons or the afternoons for two months (the half-day plan). Each half-course has a value of 125 hours. Eight half-courses are necessary to satisfy the requirement of one thousand hours of work demanded in the fourth year.

Medicine, pediatrics, surgery, and obstetrics offer electives on the all-day plan.

Anatomy, comparative anatomy, comparative pathology, genito-urinary surgery, orthopedics, surgical pathology, clinical surgical pathology, gynaccology, dermatology, neurology and psychiatry, ophthalmology, otology, and laryngology offer electives on the half-day plan.

Physiology, comparative physiology, biochemistry, bacteriology, pathology, preventive medicine and hygiene, theory and practice and neuropathology offer electives on both plans.

The several half-courses offered by any one department are not necessarily graded courses, but represent hours of clinical, technical, and research work.

Students who intend to become general practitioners are advised to elect the following group of subjects:—

Medicine (theory and practice, clinical medicine).	3 1	half-c	ourses.
Pediatrics	1	6.6	66
Surgery	1	66	66
Obstetries	1	66	66
Neurology and psychiatry, dermatology and syphilis,			
or gynaecology	1	66	44
Anatomy, comparative anatomy, physiology, bio-			
chemistry, bacteriology, neuropathology, hygiene,			
or orthopedics	1	66	66
or orthopedics	1	• • •	••

Students interested in surgery are advised to elect the following group of subjects:—

Medicine (theory and)	pra	act	ice,	cli	ni	cal	n	ie	dic	in	e)	2	half-	courses
Surgery											۰	2	66	66
Genito-urinary surgery												1	66	66
Anatomy												1	66	66
Gynaecology or clinica	l s	ur	gica	ıl p	atl	ıol	og	У			٠	1	6.6	6.6
Orthopedics or surgica	l Į	at	hole	ogy								1	66	6.6

Students wishing to specialize in any particular branch of medical study may elect more than one of the half-courses offered in a given subject, but no student will be allowed to devote his whole year to one subject without the consent of the head of the department concerned. Special arrangements will be made for students desirous of paying exclusive attention to other subjects than those listed, for example, pharmacology and comparative pathology.

When a student's research work in an elective is necessarily prolonged beyond the time elected for that subject, he will be allowed, with the permission of the Administrative Board, to make such changes in his electives as will enable him to finish his research work, provided the time required does not extend beyond the school year.

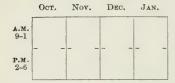
The final choice of electives must be left at the Dean's office on or before September 15.

The Faculty reserves the right to modify the selection of the courses chosen by any student. The *order* in which a student's electives are arranged must be determined by the Secretary of the Faculty.

The nature of the examinations shall be determined by each department subject to the approval of the Faculty. The student's credit may be based on his daily written record of work, and on a practical or written examination at the end of his course, or upon all combined. The mark assigned must be sent immediately to the Dean's office.

DIAGRAMS OF FOURTH-YEAR ELECTIVES

Half-courses. - All-day Plan



FEB. MAR. APR. MAY.

Comparative Anatomy 1.** Physiology 1 and 2.

Comparative Physiology 1.

Biochemistry.

Bacteriology.**

Pathology 1,** 3, and 5. Preventive Medicine and

Hygiene.** Theory and Practice 1, 2, 3,* 4, and 5.*

Clinical Medicine. Roentgenology. Surgery. Pediatrics.

Obstetrics.

Half-courses. - Half-day Plan

	Oct.	Nov.	DEC.	JAN.
A.M. 9-1				
		1		
P.M. 2-6				

Forenoons

Comparative Anatomy 1.**

Physiology 1 and 2.

Comparative Physiology 1.

Biochemistry.

Bacteriology.**

Pathology 2.

Preventive Medicine and Hygiene.**

Legal Medicine.**

Theory and Practice 5.*

Gynaecology.

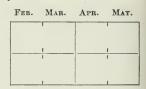
Dermatology.

Neurology.

Ophthalmology.**

Otology.

Laryngology.



Afternoons

Anatomy 1 and 3.

Comparative Anatomy 1,** 2,*

3,* and 4.*

Physiology 1 and 2.

Comparative Physiology 1 and

Biochemistry.*

Bacteriology.**

Pathology 2, 4,** and 5.

Comparative Pathology 1.*

Preventive Medicine and

Hygiene.**

Pharmacology.**

Theory and Practice 4.*

Orthopedics.

^{* =} only first half-year.

^{** =} only second half-year.

Group of Courses Recommended for the General Practitioner

	Oct.	Nov.	DEC.	JAN.	11	Feb.	MAR.	APR.	MAY.
A.M. 9-1 P.M. 2-6	Medicine	l Medicine	Medicine	Pediatrics		Surgery	Obstetrics	1	
	Medi	cine					. 3 hal	lf-cours	es.
	Pedia	trics .					. 1 "	66	
	Surge	ery					. 1 "	66	
	Obste	etrics .					. 1 "	6 66	
	(1) N	Veurolo	gy and	psychi	atry, derm	atology	,		
	` '						. 1 "		
	(2) A				anatomy 1		i-		
	` '				pacteriology				
		0.			ve medici				
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		-, 0	,	1					
0	roup o	f Cours	ses Rec	ommen	ded to Me	n inter	ested in	n Surg	ery
	Ост.	Nov.	DEC.	JAN.		FEB.	MAR.	APR.	MAY.
							1		
A.M. 9-1	ne	ne	b	5		G. U.	Surgery		1
	lici –	lici -	- ge -	- ge -			1		1
P.M.	Medicine	Medicine	Surgery	Surgery			1		
2-6			0.2	02		Ana	atomy		2
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	Medi	icine .					. 2 ha	lf-cour	ses.

FOURTH-YEAR ELECTIVES ARRANGED UNDER DEPARTMENTS

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Anatomy. Half-courses, afternoons, throughout the year.

Genito-urinary surgery

(1) Gynaecology or clinical surgical pathology 1
(2) Orthopedics or surgical pathology 1

Anatomy 1. October and November; December and January; February and March. Professor Dwight and Assistant Professor Warren.

This is a course in which the three parts of the body are to be dissected. This work will be supplemented by the study of frozen sections and a certain number of demonstrations.

N. B. — No one can take this course who has not passed his first-year anatomy.

Anatomy 2. April and May. Professor DWIGHT.

This is a course in advanced anatomy for those especially interested in the subject. Opportunities for work along special lines will be given. Students who wish to elect this course must first consult the professor of anatomy who reserves the right to reject any applicant.

Anatomy 3. Half-courses, afternoons, April and May. Dr. II P. Mosier.

This is a course of special anatomy of the eye, ear, nose, and throat which fits in with the full year course in Ophthalmology, Otology, and Laryngology, as mentioned under the fourth-year electives in Laryngology. This course may be taken as an individual half-course,

Comparative Anatomy. Half-courses, forenoons or afternoons, throughout the year.

Comparative Anatomy 1. Embryology of Vertebrates.* Half-courses, mornings, afternoons, or all day, second half-year. Assistant Professor Lewis and Mr. Johnson.

An elementary knowledge of embryology, such as may be obtained from Course 1, is required. Course 5 offered by the Department of Zoölogy of Harvard College, or an equivalent course, is recommended.

In this course sixteen hours per week (at times chosen by the student) are to be spent in laboratory work. There are no lectures, but at appointed times the students meet for directions and for a thorough discussion of the specimens studied. Each student will be required to make a detailed study of at least three embryos. The methods of making graphic and wax reconstructions will be taught, together with the ways of preparing drawings for publication. Reconstructions by both methods, and a certain number of drawings suitable for reproduction will be required.

The object of the course is, therefore, to give the student a knowledge of embryology by learning minutely the entire anatomy of three embryos of diverse stages of development, and to teach the methods of embryological research.

In place of a text-book, original publications will be used. At the discretion of the instructor students may have access to the extensive Embryological Collection and to the collection of models, many of which were made in this laboratory.

Comparative Anatomy 2. Half-course, afternoons, 4-6, October and November. Professor Minot and Dr. Williams.

Structure and development of the eye, ear, and nasopharynx.

^{*} No student will be allowed to take less than two half-courses.

Comparative Anatomy 3. Half-course, afternoons, 4-6, October and November. Professor Minor and Dr. Williams.

Structure and development of the urogenital system.

Comparative Anatomy 4. Half-course, afternoons, 4-6, December and January. Professor Minor and Dr. Williams.

Development and histology of the nervous system.

PHYSIOLOGY.

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Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Detailed study in special subjects in physiology. Such study will include preparation of bibliographies, reading of classical papers, repetition of important experiments, and reports on work accomplished.

Physiology 2. Investigation. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students, properly qualified, who are willing to spend sufficient time in research, will be welcomed into the laboratory and given problems to work upon. During the conduct of their investigations they will receive the counsel and guidance of other investigators working with them.

COMPARATIVE PHYSIOLOGY.

Comparative Physiology 1. Half-courses, forenoons, afternoons, or all day, throughout the year.

Students may elect work in any field of physiology. It is to be presumed that such students desire additional work in physiology to fit them for some special field of medicine, for example, the diseases of the nervous system; or they may wish to pursue physiology, pathology, or some other biological science as a profession. They will be received into the research laboratories of the department, and will carry on their studies with the personal assistance of Professor Porter. The work will consist of fundamental experiments, the study of accessory data, and the reading of selected original investigations. The course is open to qualified persons not students in the Medical School.

Comparative Physiology 2. Physiology of the eye, the ear, and the upper respiratory tract. Afternoons, except Saturday, in December and January.

BIOCHEMISTRY. — Research in Biological Chemistry. Half-courses, forenoons, throughout the year; all day or afternoons, first half-year.

Bacteriology. Half-courses, forenoons, afternoons, or all day, second half-year.

These electives will be of four kinds, including (a) instruction in methods of diagnosis depending upon bacteriological procedures; (b) instruction in methods of bacteriological diagnosis in use in Health Board laboratories, including the examination of waters and soils; (c) instruction in methods of opsonic-index work, with practical application; (d) research work in any direction for which the student may be fitted.

Longer courses may include one or the other of these, together with a limited piece of research work.

PATHOLOGY.

Pathology 1. Half-courses, all day, second half-year.

The work will consist of (a) training in the technical methods used in pathology; (b) attendance at postmortem examinations, and the fixation and study of tissues obtained from them; (c) study of the more unusual pathological lesions; (d) research work in any line which a student demonstrates his fitness to pursue.

Pathology 2. Neuropathology. Professor E. E. Southard. Half-courses, forenoons, afternoons, or all day, throughout the year.

The course is given at the Harvard Medical School. Except in ndividual instances, the method of the course will involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work.

Limited to two during a given month. The instructor should be consulted in advance.

Pathology 3. Neuropathology. Professor E. E. Southard. Half-courses, all day, throughout the year.

The course is given at the Danvers State Hospital. Except in individual instances, the method of the course will involve the working-up, as if for publication, of a selected case. The report will be based upon the personal employment of approved neuropathological methods and upon a variable amount of library work. Students will be permitted to attend the daily case-readings of the hospital staff and to work upon selected cases in the wards.

Limited to two during a given month. The instructor should be consulted in advance.

In addition to these two general electives, the following special courses are also open as electives to fourth-year students:—

Pathology 4. Protozoölogy. Asst. Professor E. E. Tyzzer. Half-courses, afternoons, second half-year.

The first object of the course will be to enable the student to familiarize himself with a number of the more representative types and species of parasitic protozoa. The remainder of the course will consist in work upon a special problem, with the end in view of providing training in the investigation of protozoan infections.

Both experimental and histological methods will be employed. The experiments will necessarily be shaped according to the nature of the problems taken up. The histological work will consist of the morphological study of the parasites and of the changes which they produce in the host. The course is open to a limited number of fourth-year students.

Pathology 5. Experimental Pathology. Dr. F. P. Gay. Half-courses, all day, or afternoons, throughout the year.

The subject as considered in this course comprises the experimental study of such phenomena as phagocytosis (including the relations of opsonins to this process), bacteriolysis (Pfeiffer's phenomenon), hemolysis, agglutination (both of bacteria and cells), serum precipitation, antibody formation in general, and anaphylaxis or hypersusceptibility. The work consists in the study of some definite problem in this field, pursued under the personal direction of the instructor. The course will incidentally teach certain technical biological methods, such as the inoculation and bleeding of animals, and the tests for specific properties in blood serum. Although intended primarily as introductory to more systematic research, the work will give insight as to the biological principles which underlie tests of recognized diagnostic value, such as the Widal test for typhoid, the Uhlenhuth forensic test for blood and meats, and the Bordet-Gengou "reaction of fixation" (a test for antibodies or antigens).

The course is limited to two men in any given month, who should consult the instructor previously.

COMPARATIVE PATHOLOGY.

Comparative Pathology 1. Half-course, afternoons, October and November, first half-year. Laboratory work, lectures and conferences. Attendance is limited to ten students.

The laboratory work will consist in a study of such infectious diseases of man and the higher animals as are reproducible at will upon the smaller animals. Each disease taken up will be studied as far as possible in the living animal with reference to the cellular reactions and the antibodies of the blood, and the secretions and excretions. The tissue changes will be studied histologically, and the chief biological and pathogenic characters of the microorganisms investigated. At the same time attention will

be given to changes in the character of the diseases due to different degrees of artificially induced immunity.

Comparative Pathology 2. Research. Students who have taken the above pro-research course or its equivalent will be admitted as research students to work upon some problem in experimental and comparative pathology for which adequate facilities can be provided. Such work may be undertaken at the convenience of the student.

Preventive Medicine and Hygiene. Half-courses, forenoons, afternoons, or all day, second half-year.

The course will consist in part of laboratory instruction and in part of special research. The laboratory instruction will comprise the analysis of air, soils, water and foods, the investigation of disinfectants, immunity, transmission of the communicable diseases, and epidemiology.

Students must see the Instructor in charge before enrolling in this course.

LEGAL MEDICINE. Half-courses, forenoons, second half-year.

This course will consist of demonstrations of medico-legal autopsies, court-room work, laboratory work, and a certain amount of library work. Students must see the Instructor before enrolling in this course.

PHARMACOLOGY AND TOXICOLOGY. Half-course, in April and May, every afternoon except Saturday.

This is an experimental course in pharmacology, toxicology, and materia medica briefly outlined below.

- A. The study of the general physical and chemical characteristics of the most important organic and inorganic drugs; including the alkaloids, glucosides, oils, gums, resins, etc., with some tests for their detection.
- B. Toxicological and pharmaceutical methods of extracting drugs; this consists in the extraction of some drugs of toxicological interest from tissues, and also of others from plants, with methods of separating alkaloids, etc., from each other.
- C. The making of illustrative pharmaceutical preparations, such as pills, ointments, etc., including studies in incompatibilities.
- D. Special study of drugs by groups, including materia medica, the pharmacological and toxicological action and therapeutical deductions. At the beginning of the exercise, the student will examine the drugs to be studied and make some physical and chemical tests, followed by experiments upon animals; after which comes a summing-up of the facts learned experimentally, and an intelligent deduction as to their application in practical medicine, with the writing of prescriptions.

This course will be given under the supervision of Dr. Tyrode, assisted by Dr. Williams.

Theory and Practice of Physic. The electives in medicine offered by the Department of Theory and Practice consist of

Theory and Practice 1. Half-courses, all day, throughout the year.

These courses will be given at the Massachusetts General Hospital. Each half-course of one month is limited to four students. This work, given in the wards and laboratory of the Massachusetts General Hospital, offers the student opportunity to make thorough study of selected medical cases, both by clinical and by laboratory methods, and to follow the progress of these cases from day to day until their discharge or until the end of the course. In addition to his own cases each student will be given opportunity to examine and to attend demonstrations upon the cases of his fellow students and to observe the general conduct of the wards. As occasion offers he will be enabled to see aspirations, lumbar punctures, and other such procedures, as well as operations upon such patients as are transferred to the surgical services. Attendance at autopsies will constitute a part of the work. These courses will be given under the supervision of Dr. Palerrey, assisted by Dr. R. M. Smith.

Theory and Practice 2. Half-courses, all day, throughout the year.

This work will be given at the Carney Hospital, and in the laboratory of the Department at the Medical School. Each half-course of one month is limited to four students. During the forenoons two students will alternate between the medical wards and the out-patient department of the Carney Hospital. The work there will consist in a consecutive study of ambulatory and ward patients with the application of appropriate laboratory methods, and offers the same opportunities of study as are described above under Theory and Practice 1. There will be also special opportunity for the medical observation of surgical cases before and after operation. During the afternoons the students will work in the laboratory of the Department at the Medical School. In the laboratory the students will follow the course of experimental disease in animals by clinical laboratory methods, and will study the pathology of lesions so produced. There will also be an opportunity for the continuation of more complicated laboratory procedures for which the hospital laboratory does not furnish facilities. These courses will be given under the supervision of Professor Christian, assisted by Drs. LEEN and CHANNING FROTHINGHAM, Jr.

Theory and Practice 3. Half-courses, all day, first half-year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. J. H. Pratt, with whom special arrangements for the course must be made.

Theory and Practice 4. Half-courses, afternoons, or all day, throughout the year.

These courses will consist of research in the laboratory of the Department and will be given under the direction of Dr. Channing Frothingham, Jr., with whom special arrangements for the course must be made. The work will consist of investigation by means of animal experimentation with the study of pathological changes produced in various ways.

Theory and Practice 5. Half-courses, forenoons, or all day, beginning October 1st.*

These courses will be given at the Massachusetts General Hospital and in the laboratory of the Department at the Medical School, and will consist of instruction in special methods of study of clinical cases, and practice in the application of these methods of clinical investigation to hospital patients. The methods which will be studied are chiefly those of chemical clinical investigation. These courses will be given under the direction of Dr. H. F. Hewes, with whom special arrangements for the course must be made.

CLINICAL MEDICINE. Half-courses, all day, throughout the year.

The morning will be devoted to clinical work in various out-patient departments, and the afternoon to work in the wards at the Massachusetts General Hospital. One afternoon each week will be devoted to a ward visit and a demonstration in clinico-pathology. The written report of four cases will be required (two from the out-patient work and two from the ward work), and a thesis containing original work of some character, the length of which will vary according to the number of half-courses elected. Eight such courses are offered, and the student may elect as many as he chooses.

- (1) Clinical Instruction. This is of two kinds:-
 - (a) Work in the morning in the Out-Patient Department under special supervision.
 - (b) Work in the wards under special supervision, with the assignment of cases for study.
- (2) Practical Therapeutics. One exercise each week is devoted to practical therapeutics. The use and effect of drugs in selected cases are considered.

*Students taking these courses may continue their work during other months of the first half-year, but no student may begin these courses later than October 1st.

- (3) Clinical Pathology. One exercise will be devoted to demonstrations in gross pathology given jointly by members of the pathological and medical departments. In this exercise the autopsy material of the previous week is studied at the Massachusetts General Hospital in relation with the clinical history, physical signs, and clinical diagnosis of each case.
- (4) Tuberculosis Work. One afternoon each week is given up to clinical work at the Boston Consumptives' Hospital. The abundant material there affords an excellent opportunity for the study of all stages of the disease and for the demonstration of the form of treatment adapted to the various classes.

TROPICAL MEDICINE.

Tropical Medicine 1. Bacteriology. Half-course, afternoons, February and March.

This course deals specially with the bacteriology of tropical diseases.

Tropical Medicine 2. Protozoölogy. Assistant Professor E. E. Tyzzer. Half-courses, afternoons, second half-year.

The first object of the course will be to enable the student to familiarize himself with a number of the more representative types and species of parasitic protozoa. The remainder of the course will consist in work upon a special problem, with the end in view of providing training in the investigation of protozoan infections.

Both experimental and histological methods will be employed. The experiments will necessarily be shaped according to the nature of the problems taken up. The histological work will consist of the morphological study of the parasites and of the changes which they produce in the host. The course is open to a limited number of fourth-year students.

Tropical Medicine 3. Medical Zoölogy. Half-course, afternoons, April and May.

This course consists of laboratory exercises in the various groups of animal parasites and insect carriers. Qualified students may choose some special subject for detailed study.

Students taking the above courses will have opportunity from time to time to study cases of imported tropical diseases in the Boston hospitals.

ROENTGEN RAY. All day, throughout the year, except December and March.

A complete course will be given in the application of the Roentgen Ray in diagnosis and therapeutics. Mornings from 9 A.M. to 12 M. at the

Massachusetts General Hospital and Carney Hospital, Drs. Walter J. Dodd and Percy Brown. Afternoons from 3 to 5 o'clock, at the Children's Hospital, Dr. Arial W. George.

PEDIATRICS. Half-courses, all day, throughout the year.

The work will consist of clinical lectures in the wards and Out-patient departments of the Children's Hospital and of the Infants' Hospital, in the contagious wards of the South Department of the Boston City Hospital, and at the Burroughs Place Dispensary. The students will be assigned to the various clinics by the professor of Pediatrics and the work will be under his supervision. The mornings will be taken up with the teaching in the wards and Out-patient departments of the Children's and Infants' Hospitals and with special instruction in cases of early tuberculosis at the Burroughs Place Dispensary. There will also be two lectures on the significance of the ear in early life given by Dr. Crockett in the wards of the Infants' Hospital and at the Eye and Ear Infirmary.

The whole section will spend two hours a week at the South Department, where special instruction will be given by Professor McCollom and Dr. Place. In this course special instruction in general pediatrics as connected with contagious diseases will be given. Whenever possible the technique of intubation will be shown. Professor Rotch and Dr. Lucas will spend one afternoon in each week for three weeks in the month in giving practical instruction by means of Roentgen plates in the normal development of early life and in the more important abnormal medical conditions. On one afternoon during the month Professor Rotch will meet the class and give them practical instruction in a research milk laboratory in the writing of prescriptions, in the routine of laboratory work and in the dietetics of early life. Each student will have assigned to him a subject for a thesis, and this thesis will be required to form a part of the examination mark for his degree in Pediatrics.

SURGERY: -

(1) Surgery. Half-courses, all day, throughout the year.

The instruction will consist of ward work, the examination of cases, the recording of histories, the establishing of diagnoses, the etherization of patients, the dressing of injuries, wounds, and fractures, the close observation of operations, seeing the progress of a surgical patient, and the end results of cases. The out-patient work will consist of the establishing of diagnoses, the treatment of cases under direction, and the recording of histories. This work will be carried out at the hospitals, in the wards and out-patient departments, and will occupy a part of each day, and will be from time to time directed and supervised by instructors.

The afternoons will be devoted to library, museum, and literary work, surgical pathology, case teaching, regional surgery, and operative surgery. Seminars and conferences will be held as occasion requires. The student will be required to account for his daily work.

(2) Genito-Urinary Surgery. Half-courses, forenoons, throughout the year.

The instruction will consist of ward and out-patient work, the taking of histories, the witnessing of and assisting at operations, the reporting of the progress of cases, and seeing the end results. Conferences with the student will be held from time to time.

(3) Surgical Pathology. Half-courses, afternoons, December to May, inclusive.

The course is for students who desire to learn methods of original investigation in any line of the pathology of surgical diseases, especially in the line of experimental work. No formal instruction is given, but students will be assisted and directed in methods and technique. The cost of materials used in experimental work must be met by the student. A four months' course is advised.

(4) Chinical Surgical Pathology. Half-courses, forenoons, throughout the year.

The course will consist of a study of clinical cases with especial reference to the pathology of the lesions present and the use of the microscope in immediate diagnosis. The work will be supplemented with conferences and demonstrations in the Warren Museum.

(5) Orthopedics. Half-courses, afternoons, throughout the year.

The instruction will consist of section teaching, daily, throughout the year, at the Children's Hospital and Massachusetts General Hospital.

OBSTETRICS AND GYNAECOLOGY: -

(1) Obstetrics. Half-courses, all day, throughout the year.

The course will be given at the Boston Lying-in Hospital and at the Medical School. During the first half of the course the student will lodge at the Hospital, and devote his time chiefly to attendance on cases in the out-patient clinic; he will also be called upon to assist at operations, and, when his other duties permit, to make ward visits with the physician on duty. In the second half of the course he will conduct the convalescence of the cases delivered by him during his resident service, write full reports of his cases, and make daily ward visits, receiving clinical instruction on house patients, and witnessing operations. In his clinical work he will have the supervision and instruction of the Department and of the Hospital Staff on duty. In the second half of his course he will also be given, at the Medical School, a course of demonstrations in operative obstetrics, and each student will practise the various operations on the manikin.

(2) Gynaecology. Half-courses, forenoons, throughout the year.

The courses will be given by Professor Green (Oct. to Jan.) and Assistant Professor Newell (Feb. to May), assisted by Drs. Young, Friedman, and Mason, in the wards and out-patient department of the Gynaecological Service at the Boston City Hospital, which affords ample material for a comprehensive study of gynaecology, from the simpler lesions requiring only minor local treatment or the various plastic operations, to the major cases treated by capital operation. Students will be given opportunity to educate the touch, and will be instructed in diagnosis and in the methods of minor treatment. The various operations, major and minor, will be demonstrated, and opportunity given to study convalescence and post-operative treatment. Students will also be expected to study, and report on, pathological specimens removed by operation, under the supervision of Professor Mallory.

Cases will be assigned for history-taking, examination, diagnosis, with notes on operation and subsequent treatment. As far as possible students will be expected to assist in clinical work.

Dermatology and Syphilis. Half-courses, forenoons, throughout the year.

Instruction in clinical dermatology will be given at the Massachusetts General Hospital, both in the out-patient department and in the ward for skin diseases. Instruction will also be given in the histology and pathology of the skin, with training in the preparation of microscopical preparations and in histological technique.

NEUROLOGY AND PSYCHIATRY. Half-courses, forenoons, throughout the year.

The design of these courses is to continue the work of the third year in its practical relations. The aim will be to give the student an opportunity for the independent study of cases. To this end the following methods of instruction in general will be adopted:—

The instruction in neurology will be as follows: -

- (1) Daily systematic conferences on neurological topics.
- (2) History-taking, and personal examination of patients at the outpatient departments of the Massachusetts General and Boston City Hospitals.
- (3) Assistance in the clinic, both in the general examination of patients and in treatment, especially by means of electricity.
- (4) The detailed preparation of reports bearing on the subjects studied, and such original investigation as the time permits. A study of the literature bearing on special topics apart from text-books is urgently advised.

(5) Visits will also be made to institutions in the neighborhood of Boston as opportunity offers, $e.\ g.$, Massachusetts School for Feeble-Minded, Long Island Hospital, Boston Harbor.

In the final marking much account will be taken of the daily practical work of the student.

(For Neuropathology, see Pathology 2 and 3.)

The instruction in psychiatry will be as follows:—

- (1) A conference, one evening each week, for the review and further study of the cases seen at the clinics and of other cases, and for the discussion of special subjects.
- (2) Clinical instruction at the McLean Hospital one forenoon in each week. This will include attendance at the regular conferences of the Medical Staff at which there is a careful discussion of every case on its admission to the Hospital, with the study of its history, diagnosis, prognosis, and treatment. This exercise will be followed by a visit to the wards and the examination, as far as practicable, of the cases discussed at the conferences and of other selected cases.
- (3) Clinical instruction and demonstrations at the Boston State Hospital one forenoon in each week during October and November, for all electing this course. Also an individual case will be assigned to be reported and discussed at the regular evening conferences during the year.

OPHTHALMOLOGY. Half-courses, forenoons, second half-year.

The work will consist of personal instruction in the use of the ophthalmoscope and other instruments of precision. An opportunity will be given to work in the out-patient department of the Massachusetts Charitable Eye and Ear Infirmary and to observe and study cases in the wards. In addition there will be instruction in ophthalmic operations with opportunity to witness their exemplification in the operative work of the hospital.

OTOLOGY. Half-courses, forenoons, throughout the year.

For men who elect but one half-course, the work will consist chiefly of clinical training and instruction, hearing tests, and objective examinations and manipulations in the out-patient, house, and operating services of the Massachusetts Charitable Eye and Ear Infirmary.

For men especially interested in Otology, who wish to devote all their time to the subject, a thorough course of instruction has been planned embracing the anatomy, physiology, and pathology of the ear, in addition to thorough clinical instruction.

In connection with the clinical courses in Ophthalmology, Otology, and Laryngology, an afternoon half-course, at the Medical School, is offered by each of the following departments: Comparative Anatomy (October

and November), Physiology (December and January), Pathology (February and March), and Anatomy (April and May).

LARYNGOLOGY.

Laryngology 1. Half-courses, forenoons, throughout the year.

The forenoon half-courses are held daily at the Massachusetts General Hospital, and are chiefly clinical in character. In addition to the routine work of the clinic, instruction will be given in diagnosis, treatment, and applied anatomy and pathology, as well as an opportunity to assist at operations. Each student is required to follow and report on some special selected subject.

Laryngology 2. Pathology of the Nose and Throat. Drs. Joseph L. Goodale and Harry A. Barnes. Given in February and March. Daily, afternoons, except Saturdays, in the Pathological and Anatomical Laboratories of the Harvard Medical School.

The course is designed to afford advanced students a practical acquaintance with the characteristic histological alterations in the more important diseases of the nose and throat. Sections are stained and mounted by the student and retained by him as a collection to serve as a basis for the translation of clinical descriptive terms into their histological equivalents. The histological material is selected and prepared with special reference to clinical diagnosis and treatment.

In connection with the clinical courses in Ophthalmology, Otology, and Laryngology, an afternoon half-course, at the Medical School, is offered by each of the following departments: Comparative Anatomy (October and November), Comparative Physiology (December and January), Pathology (February and March), and Anatomy (April and May).

A full year's course in Ophthalmology, Otology, and Laryngology, by the Departments of Ophthalmology, Otology, Laryngology, Anatomy, Comparative Physiology, Pathology, and Comparative Anatomy.

Graduates, by choosing fourth-year electives, can devote an entire year to ophthalmology, otology, and laryngology, including the embryology, physiology, pathology, and anatomy of the eye, ear, throat, and related structures. The following arrangement has proved successful:—

	Oct. Nov.	Dec. Jan.	Feb.	Mar.	Apr.	May
A.M.	Otology or Laryngology	Laryngology or Otology		Ophthal	mology	
P.M.	Embryology	Physiology	Patho	ology	Anat	omy

Students not desiring ophthalmology can elect courses in otology, or laryngology, which will fill the forenoons of the entire year in combination with the afternoon laboratory courses suggested above.

EXAMINATIONS

The final examination in every required subject is held at the close either of the first or of the second half of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The Mid-Year and June examinations are for those only who are members of the School at the time, and for those entitled to apply for the degree. The September examination is for those only who have been examined previously and have failed in the subject of the examination, or for applicants for advanced standing. In some subjects a portion of the examination consists of practical work in the laboratory.

The exercises of the third year are omitted during the mid-year examinations.

The amount of time credited to each examination is as follows: -

First Year.—Anatomy * (3 hrs.), Histology and Embryology * (3 hrs.), Physiology (3 hrs.), Biological Chemistry (3 hrs.).

Second Year. — Bacteriology * (1 hr.), Pathology * (2 hrs. written, 1 hr. practical), Preventive Medicine and Hygiene (1 hr.).

Third Year. — Materia Medica and Therapeuties* (2 hrs.), Theory and Practice* (3 hrs.), Clinical Medicine (3 hrs.), Pediatrics (2 hrs.), Surgery* (2 hrs. written, 1 hr. practical, as follows: Surgery, 15 min.; Orthopedic Surgery, 15 min.; Surgical Technique, 15 min.; Surgical Pathology, 15 min., taken in second year), Clinical Surgery (1 hr. written, 1 hr. practical, as follows: Clinical Surgery, 45 min.; Genito-Urinary Surgery, 15 min.), Obstetrics (3 hrs.), Gynaecology (1 hr.), Dermatology (1 hr.), Syphilis (1 hr.), Neurology (1 hr.), Psychiatry (1 hr.), Ophthalmology* (1 hr.), Otology (1 hr.), Laryngology (1 hr.).

Fourth Year. — The nature of the examinations is determined by each department. The student's credit is based on his daily written record of work, and on a practical or written examination at the end of each course, or on all combined.

In addition to the above examinations every student is required:—

To dissect the three parts of the body to the satisfaction of the demonstrator;

To receive practical instruction in anaesthesia;

* The examinations in these subjects are held at the end of the first half-year.

To present a certificate that he has satisfactorily served as a surgical dresser in the surgical out-patient department of the Massachusetts General Hospital or Boston City Hospital for at least one month after taking the course in surgical technique in the second half of the second year;

To take charge of and report on six cases in Obstetrics, and to receive instruction on at least one of them;

To furnish satisfactory evidence of having engaged in the practical exercises in Theory and Practice.

No student is allowed to anticipate the examinations in the regular course of studies of his year, except by special permission of the Faculty.

After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

DEGREES

Degree of Doctor of Medicine

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must fulfil all the requirements for admission to this Medical School; must give evidence of having studied in a recognized Medical School at least four full years, of which one year must be spent at this School; must pass all the required examinations, and fulfil satisfactorily the special requirements enumerated above.

The degree of Doctor of Medicine will be given to those candidates who fulfil the above requirements. The degree of Doctor of Medicine cum laude will be given to candidates who have obtained an average of eighty per cent., or over, in all the required examinations.

Candidates for the degree must make application for it in writing, on blanks furnished at the Dean's office, on or before May I of the year in which they propose to graduate.

Candidates for the degree of Doctor of Medicine are not required to present a thesis; but they may present a voluntary thesis which, if of conspicuous merit, may receive honorable mention; if the thesis is also of a suitable character, it may be read at the Commencement exercises. Theses must be completed and delivered to the Dean on or before the first day of May.

A graduate of another Medical School of recognized standing may obtain the degree of Doctor of Medicine at this University by fulfilling all the requirements for undergraduates above mentioned, but he may take the examination in any subject only at the times when regularly it is held, that is, in September, at the mid-year, or in June.

Degree of Master of Arts

The degree of Master of Arts is open to graduates of the Harvard Medical School who are also Bachelors of Arts of Harvard College, and to Bachelors of Arts of other Colleges who shall be recommended by the Faculty of Arts and Sciences of Harvard College. Candidates must pursue an approved course of study in Medicine for at least one year after taking the degree of Doctor of Medicine. Applications for approval of the course of study offered for this degree must be made to the Administrative Board of the Graduate School of Arts and Sciences on or before the fifteenth day of January.

Degrees of Master of Science, Doctor of Philosophy, and Doctor of Science

There has been established within the Faculty of Arts and Sciences a Division of Medical Sciences consisting of members of the Faculties of Medicine and of Arts and Sciences, who are to recommend candidates for the degrees of S.M., Ph.D., and S.D. to the Faculty of Arts and Sciences. Work in Medical Sciences leading to these degrees may be carried on in several of the laboratories of the Medical School by properly qualified students. Information about these courses may be obtained from Professor Theobald Smith, Chairman of the Division of Medical Sciences, Harvard Medical School.

FEES AND EXPENSES

The fees are: - For matriculation, five dollars; for instruction, two hundred dollars for each year (if in two payments, at the first, one hundred and twenty dollars; at the second, eighty dollars); for a half-year alone, one hundred and twenty dollars. During the first year there are the following additional expenses: two dollars for each of the three parts required for dissection; three dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, three dollars for Histology, and twenty dollars for Chemistry and Physiology. The balances of these deposits are returnable at the end of the year. In the second year three dollars will be charged for the course in Surgical Technique; and a deposit of five dollars is required to cover breakage in the laboratory course in the Theory and Practice of Physic, the balance of this deposit to be returnable at the end of the year. In the fourth year

^{*} The Bursar's office is in Dane Hall, Harvard Sq., Cambridge. Hours 9-1.

a charge of three dollars is made for material used in the course in Operative Surgery. A deposit of one dollar with the Dean will entitle a student to the use of a locker in the School buildings. A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year. There is a graduation fee of twenty dollars for the degree of A.M., S.M., Ph.D., or S.D.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

Payment of Fees

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill. the sum of one hundred and fifty-four dollars; each second-year student is required to pay in the same manner one hundred and twenty-eight dollars; and all other students are required to pay, in the same manner, the sum of one hundred and twenty dollars. Fourth-year students electing Surgery are required to pay a charge of three dollars for material in Operative Surgery. The remainder of the tuition fee - eighty dollars each for all students - must be paid to the Bursar on or before January 31. No degree can be conferred until all dues to the University have been discharged. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation from the University.

Every student is required to file with the Bursar on his entrance to the School a bond of fifty dollars, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Secretary of the Faculty or from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places at various prices can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

CLINICAL ADVANTAGES

The Medical Department of the University is established in Boston, in order to secure for Anatomy, Pathology, and the various Clinical Subjects those advantages which are found only in large cities.

There are Hospital visits or operations daily.

The Massachusetts General Hospital.—During the past year, more than fifty-five hundred patients were treated in the wards, and there were over one hundred and seven thousand visits to the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons. Clinics in the following special branches have been established in connection with the out-patient department: Dermatology, Laryngology, and Diseases of the Nervous System. The Dalton scholarship of \$500 is open to the house pupils.

The Boston City Hospital.—During the past year, about thirteen thousand, five hundred cases were treated in its wards, and there were over one hundred and sixty-three thousand visits in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are treated yearly. Surgical operations are performed in the amphitheatre. There are special services for diseases of women, of the eye, the ear, the skin, and the nose and throat. Diseases of women and of the nervous system are also largely treated in the out-patient department. Clinical instruction is given by the physicians and surgeons two or more times a week.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence

of the class. The number of these operations is large, reaching nearly two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Lying-in Hospital. — More than seven hundred and fifty patients were delivered during the last year in the Hospital. In the outpatient department, more than two thousand cases were attended by the hospital Externes, who are appointed from the third and fourth-year students. Clinical instruction is given in these cases by the physicians to out-patients and by the house physicians.

The Boston Dispensary. — More than one hundred and seven thousand visits were made by patients at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Infants' Hospital.—The wards of the Hospital are devoted entirely to children under two years of age. About thirteen thousand visits are made by children of all ages annually in the out-patient department. The material of the Hospital is used throughout the year for teaching both students and graduates.

Children's Hospital. — During the past year more than fourteen hundred cases were treated in the wards and about twenty-seven thousand visits were made to the out-patient departments. Instruction in orthopedic surgery and in the general diseases of children is given by members of the hospital staff.

The McLean Hospital. — During the past year three hundred and seventy-three patients, received from all parts of the country, were under treatment. Advanced methods of treatment are employed, including physical exercise, massage, hydrotherapy, etc., applied by persons expert in these methods. In the laboratories, — pathological, chemical, and physiological, with psychological methods, — work is carried on in immediate connection with the clinical studies and treatment of cases. There is a good special library of works in psychiatry and neurology, and a large list of American and foreign journals available for study. Clinical conferences are regularly held by the Medical Staff for the discussion of all cases admitted, including a study of the history, diagnosis, prognosis, and treatment of each case. These exercises and clinical demonstrations in the wards are available for a limited number of students.

The Boston State Hospital. — During the past year eleven hundred and sixty-two patients were under treatment. Clinical instruction is given here in general clinics to medical students, and there are in addition facilities for the special study of cases by students taking elective courses. Emergency cases are received; the whole number of patients admitted

last year was four hundred and sixteen, including many instructive examples of the various forms of mental disease.

The Massachusetts Charitable Eye and Ear Infirmary. — Over seventy-eight thousand visits were made by patients at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

Long Island Hospital, Boston Harbor.—This Hospital is designed particularly for the treatment of chronic diseases. It has three hundred beds, with an average daily number of patients of about two hundred and seventy. It has marked advantages for the study of syphilis, tuberculosis, diseases of the nervous system, and chronic diseases of the heart and of the kidneys. The number of autopsies is annually about 50 per cent. of the deaths, a fact which affords an unusual opportunity for the study of pathological anatomy. The material in the Hospital is used for clinical instruction by the members of the Visiting Staff.

The Carney Hospital. — During the past year there were treated at this hospital two thousand five hundred and fifty-seven ward patients and in the out-patient department there were forty-four thousand six hundred and fifty-eight visits by patients. The surgical, medical, and orthopedic services are under the direction of single heads with continuous service, who with assistants manage both the house and out-patient departments.

Clinical instruction will be given in connection with the surgical, medical, orthopedic, and ophthalmic services, and opportunity will be afforded for a limited number of qualified men to engage in clinical investigation under the direction of the heads of services and their assistants. The orthopedic clinic offers special opportunities for the study of chronic joint affections in the adult.

Students are also permitted to visit the Free Hospital for Women on application to the physicians on duty.

HOSPITAL APPOINTMENTS

About eighty appointments as Internes and Assistants are made annually to hospitals in and about Boston for terms of service varying from six months to two years. These appointments are made after a competitive examination. In recent years almost every graduate of the Harvard Medical School desirous of hospital experience has obtained an appointment in some one of these hospitals.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor Emeritus from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. It occupies the upper three floors of the Administration Building. Its Curator is Dr. William Fiske Whitney.

The collection has about ten thousand specimens, illustrating both normal and pathological anatomy. Students may have access to these specimens at any time upon application to the Curator.

Besides dissections and serial sections of many hones, the anatomical collection includes many corrosion preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

LIBRARIES

Libraries in each of the four laberatory buildings contain the literature of the subjects taught in the building. These libraries are open to students daily and contain about 15,000 volumes, 25,000 pamphlets, and receive 230 different current periodicals. The students have a small general medical library of over 400 volumes and about 20 current periodicals for their own use in their reading room in the Administration Building.

The College Library at Cambridge is open to the students of this School. The Boston Public Library, which contains a large collection of medical books, is open to students who are inhabitants of Boston. Students, not inhabitants of Boston, who have filed a bond at the Bursar's office, or deposited with the Bursar the sum of fifty dollars, may also use this library. The Bursar will furnish on application the necessary certificate of bond or deposit.

The Boston Medical Library, No. 8 The Fenway, contains about 65,000 bound volumes and 35,000 pamphlets, and nearly 700 current periodicals are on file. This very valuable Library is open to those who desire to consult medical literature, on week days from 9.30 A.M. to 10 P.M., on Saturdays till 6 P.M.

FELLOWSHIPS AND SCHOLARSHIPS

Fellowships

Bullard Fellowships. In 1891, William Story Bullard, of Boston, gave the sum of fifteen thousand dollars for the establishment of three fellowships of five thousand dollars each "in memory of three physicians who were distinguished for their honorable personal character and for their professional services in this community." Accordingly the three following fellowships were established:—

THE GEORGE CHEYNE SHATTUCK MEMORIAL FELLOWSHIP.
THE JOHN WARE MEMORIAL FELLOWSHIP.
THE CHARLES ELIOT WARE MEMORIAL FELLOWSHIP.

The income of the first two is two hundred and twenty-five dollars each, and of the last, two hundred and fifty dollars.

The income from any one or all of these fellowships may be paid to any student or member of the medical profession who shall be selected by the Administrative Board of the Medical School to make such original investigations in Medical Science as in their opinion will be most useful to the profession and to the community. The results of such investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee. If published with the approval of the Committee, mention shall be made of the fact that the work was done under a Bullard Fellowship.

Holders of Bullard Fellowships are required to do an amount of work equivalent to not less than ten hours a week throughout the academic year and to present to the Committee at the end of the academic year a report on the amount and result of the work performed.

Applications for the Bullard Fellowships must be handed to the Dean on or before May 1.

Charles Follen Folsom Teaching Fellowship. In 1908 eleven thousand eight hundred and forty-three dollars and sixty-four cents was given by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870, Lecturer on Hygiene, 1877-79, on Hygiene and Mental Diseases, 1879-80, on Mental Diseases, 1880-82; Assistant Professor of Mental Diseases, 1882-85, and Overseer, 1891-1903. It was the desire of the givers that there be established in the Medical School a Charles Follen Folsom Teaching Fellowship in Hygiene or in Mental and Nervous Diseases, and that the incumbent receive the annual income of the fund, or such part of it as may be consistent with the standing rules of the Corporation in such cases. This fellowship, with an income of

five hundred and twenty-five dollars, has been assigned to the Department of Hygiene until the further order of the President and Fellows.

AUSTIN FELLOWSHIPS. Six teaching fellowships, of five hundred dollars each, have been established from the income of the Austin Fund and assigned to the Medical School.

PROCTOR FUND. A bequest of fifty thousand dollars by Ellen Osborne Proctor for the purpose of promoting the study of chronic diseases. The income of this fund is to be devoted to the care in hospital of persons afflicted with chronic disease, and to investigations into the nature and treatment of the same. The special disposition of the income of this fund is under the control of the heads of the departments of Theory and Practice of Physic, Clinical Medicine, and Pathology.

Scholarships

The Cheever Scholarship is awarded to a student of the first-year class. The Hayden Scholarship may be so awarded. All the other Scholarships are awarded to members of the three upper classes.

M. Barringer, of Schenectady, N. Y., thirty thousand two hundred and thirteen dollars and forty-nine cents has been received as his residuary bequest establishing the "Edward M. Barringer fund." "And I direct that the said 'President and Fellows' forever maintain from the income of said rest and residue (if the same shall be sufficient) two scholarships for students in said Medical School, the annual amount or value of such scholarships to be fixed from time to time by the said President and Fellows in their best discretion but at not less than \$300 and \$200 respectively; and with such conditions as to them shall seem best, to be called respectively 'Edward M. Barringer Scholarship No. 1,' and 'Edward M. Barringer Scholarships, with the incomes named above, are awarded to deserving students, preferably those of the fourth class.

Lucius F. Billings Scholarship, with an income of two hundred and twenty-five dollars, was founded in 1900 from a bequest under the will of Lucius F. Billings. The income may be divided between two or more students.

The James Jackson Cabot Scholarship; with an income of two hundred and seventy-five dollars. In 1906, Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot gave six thousand dollars to establish the James Jackson Cabot Fund in the Medical School. The income remaining after adding a certain percentage to the principal each year is preferably, but not necessarily, to be used for a scholarship "to aid and encourage practical work in scientific medicine."

DAVID WILLIAMS CHEEVER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1889 by David Williams Cheever, M.D., LL.D., of Boston, of the Class of 1852. It is to be awarded to a poor and meritorious student of the first year, after three months' probation in the Medical School.

Orlando W. Doe Scholarship. The bequest of Orlando Witherspoon Doe (a.b. 1865, m.d. 1869) was five thousand dollars. One-half of the income derived therefrom, amounting to one hundred dollars, "is to be given annually as a scholarship to a deserving student in the Medical department."

3

Joseph Eveleth Scholarships. Three Scholarships with an annual income of two hundred dollars each. Founded from the residuary bequest of thirty-seven thousand eight hundred and ninety-seven dollars and fourteen cents, made by Joseph Eveleth, of Boston, "for aiding deserving and indigent young men in obtaining an education in said College or any of the schools connected therewith." Three Scholarships on this foundation have been assigned to the Harvard Medical School.

The Lewis and Harriet Hayden Scholarship for colored students was founded in 1894 from a bequest of Mrs. Harriet Hayden. The income, two hundred and fifty dollars, may be divided between two or more students.

HILTON SCHOLARSHIPS. Two Scholarships with an income of two hundred and twenty-five dollars each were founded in 1897 from a bequest of William Hilton.

CLAUDIUS M. JONES SCHOLARSHIP, with an income of two hundred and fifty dollars, is from a bequest of six thousand dollars by Claudius Marcellus Jones, of the Class of 1866, M.D. 1875.

ALFRED HOSMER LINDER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1895 by Mrs. George Linder. It is to be awarded to a needy student who shall have proven himself to be of sound principles and marked ability.

The Joseph Pearson Oliver Scholarship, with an income of four hundred dollars, was founded in 1904 by patients of the late Joseph Pearson Oliver, M.D. 1871, to be awarded "to such needy and deserving student of the Medical School as the Administrative Board shall annually recommend."

CHARLES B. PORTER SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 from a bequest of five thousand dollars by William L. Chase.

CHARLES PRATT STRONG SCHOLARSHIP, with an income of two hundred and twenty-five dollars, was founded in 1894 by friends and patients of the late Charles Pratt Strong, of the Class of 1876, M.D. 1881.

ISAAC SWEETSER SCHOLARSHIP, with an income of two hundred and fifty dollars at present, was founded in 1892 by Mrs. Anne M. Sweetser. The income is to be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

The John Thomson Taylor Scholarship, with an income of two hundred and fifty dollars, was founded in 1899 by Mrs. Frederic D. Philips in memory of her brother, John Thomson Taylor, who died in 1889. He was a student of the Medical School from 1887 to 1889.

EDWARD WIGGLESWORTH SCHOLARSHIP, with an income of two hundred and fifty dollars, was founded in 1897 by the family of the late Edward Wigglesworth, of the Class of 1861, M.D. 1865, the yearly income of the fund to be paid to a needy and deserving student of the Medical School whom the Administrative Board shall recommend.

Francis Skinner Fund. A fund of five thousand dollars was established in 1905, the income of which shall be placed at the disposal of the Dean of the Medical School to be used by him in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses. Two hundred dollars is available annually.

This fund remained as an anonymous gift until 1908, when by vote of the President and Fellows of Harvard College it was named the Francis Skinner Fund in honor of the late Francis Skinner, Esq., the donor.

COTTING GIFT. The income of a fund received from the late Dr. Benjamin E. Cotting will be given to such medical student or students as the Administrative Board may select, having regard to the pecuniary needs, intellectual capacity, faithfulness and earnest endeavor, rather than to highest scholarship merely. The amount to be awarded annually will be one hundred and twenty-five dollars.

John Foster Fund. The income of the John Foster Fund, amounting to about one hundred and fifty dollars, is available in alternate years in the Law School and in the Medical School, for one or more meritorious students needing assistance. The next assignment in the Medical School will be made in 1910.

These scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work either in this School or in a preparatory course elsewhere.

Students who have not been able to obtain scholarships often find time and opportunity to do outside work of various kinds in the city.

PRIZES 79

All applications for scholarships or pecuniary aid, except for the Cheever and Hayden Scholarships, must be handed to the Dean on or before May I.

Applications for the Cheever and Hayden Scholarships must be handed to the Dean on or before *November 30*. These scholarships are open only to students who are members of the school at the time of application.

Blank forms, on which all applications for pecuniary aid must be made, may be obtained at the Dean's office.

PRIZES

Boylston Medical Prizes.—These prizes, which are open to public competition, are offered annually for the best dissertations on questions in medical science proposed by the Boylston Medical Committee.

At the annual meeting held in Boston in 1909 a prize was awarded to Dr. Francis H. McCrudden, for an essay entitled "The Quantitative Separation of Calcium and Magnesium in the Presence of Phosphates and Small Amounts of Iron: devised especially for the Analysis of Foods, Urine and Feces."

For 1910 two prizes are offered: -

- 1. A prize of seventy-five dollars for the best dissertation on The results of Original Work in Anatomy, Physiology, or Physiological Chemistry. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on The results of Original Investigations in Pathology, Bacteriology, Therapeutics, or Pharmacology. The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before *January 1*, 1910.

For 1911 two prizes are offered: —

- 1. A prize of seventy-five dollars for the best dissertation on *The results of Original Work in Anatomy*, *Pathology*, or *Bacteriology*. The subject to be chosen by the writer.
- 2. A prize of seventy-five dollars for the best dissertation on *The results of Original Investigations in Physiology, Physiological Chemistry, Pharmacology, or Experimental Therapeutics.* The subject to be chosen by the writer.

Dissertations on these subjects must be sent post-paid to H. C. Ernst, M.D., Harvard Medical School, Boston, Mass., on or before January 1, 1911.

In awarding these prizes preference will be given to dissertations which exhibit original work, but if no dissertation is considered worthy of a prize, the award may be withheld.

Each dissertation must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Dissertations must be printed or typewritten, and their pages must be bound in book form.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

By an order adopted in 1826, the Secretary was directed to publish annually the following votes:—

- 1. That the Board do not consider themselves as approving the doctrines contained in any of the dissertations to which premiums may be adjudged.
- 2. That in case of publication of a successful dissertation, the author be considered as bound to print the above vote in connection therewith.

The Boylston Medical Committee is appointed by the President and Fellows, and consists of the following physicians: William F. Whitney, M.D., Chairman; Harold C. Ernst, M.D., Secretary; Franz Pfaff, M.D., Theobald Smith, M.D., William T. Porter, M.D., Edward H. Nichols, M.D., John Warren, M.D.

The address of the Secretary of the Boylston Medical Committee is Harold C. Ernst, M.D., Harvard Medical School, Boston, Mass.

William H. Thorndike Prize. — A prize of two hundred dollars will be given annually to the author of the best essay on some subject in any branch of Surgery.

The students of the Harvard Medical School and graduates of under five years' standing of any recognized medical school are eligible in competition for this prize.

Each essay must bear in place of its author's name some sentence or device, and must be accompanied by a sealed packet bearing the same sentence or device, and containing within the author's name and residence. If the author is a graduate, it must also contain the date of his graduation in medicine and the medical school from which he was graduated. Any clew by which the authorship of an essay is made known to the judges will debar such essay from the competition.

The essays must be sent to the Dean of the Harvard Medical School, Longwood Avenue, Boston, Mass., U. S. America, on or before November 1 of each year, and the award will be made annually on December 24. If no essay is considered worthy of a prize, no award will be made.

Otological Prize. — For the best preparation illustrating the osseous anatomy of the ear or for the best thesis showing original work on an otological subject, a prize of twenty-five dollars is offered, open to fourth-year students.

Other Prizes.—The Bowdoin, Dante, Sumner and Toppan Prizes, offered by the Faculty of Arts and Sciences, are open to students in all departments of the University. Full particulars in regard to these prizes may be found on pages 540-543, and 593 of the University Catalogue.

COURSES FOR SPECIAL STUDENTS

All courses, including laboratory courses, in the Harvard Medical School are open to persons not candidates for the degree of Doctor of Medicine; that is to say, to special students and to students in other Departments of the University. In order to be admitted to a course, the applicant must satisfy the head of the Department concerned of his fitness to pursue the work.

In addition, certain Departments offer courses, not a part of the regular curriculum, but specifically designed for special students; as follows:—

Anatomy. Professor Dwight, Assistant Professor J. Warren, and Assistants.

- (1) Course for artists, teachers, and others. (Essentially the regular first-year course with dissection.)
 - (2) Special instruction and opportunities for research.

Physiology. Professor Cannon.

Physiological Research.

COMPARATIVE PHYSIOLOGY. Professor PORTER.

Physiological Research.

BIOLOGICAL CHEMISTRY. Professor Folin and Dr. Henderson.
Biochemical Research.

PHARMACOLOGY. Professor PFAFF and Dr. Tyrode.

Pharmacological Research.

BACTERIOLOGY. Professor ERNST, and Drs. FROTHINGHAM and PAGE.

- (1) Elementary courses beginning at other times than October 1 and February 1, for groups of not fewer than four students.
 - (2) Advanced instruction to groups of not fewer than four students.
- (3) Research course for advanced students. Desks will be assigned at any time.

PATHOLOGY. Assistant Professor WRIGHT.

- (1) Research in bacteriology and pathology.
- (2) Instruction in bacteriological and pathological technique and in diagnosis by laboratory methods.

(3) Weekly demonstrations in pathological anatomy in conjunction with Assistant Professor Richard C. Cabot, who will discuss the clinical aspects of the cases.

COMPARATIVE PATHOLOGY. Professor THEOBALD SMITH.

Research. Problems in experimental and comparative pathology with special reference to infectious and parasitic diseases.

PREVENTIVE MEDICINE AND HYGIENE. Professor Rosenau.

Research in Problems of Preventive Medicine and Hygiene.

SURGERY. Professor BURRELL and Dr. HUBBARD.

- (1) Special courses in surgical technique.
- (2) Research.

These courses will be given in the Laboratory for Surgical Research that has been recently established under the direction of Professor Burrell and Dr. Hubbard. Application may be made to either of those gentlemen. The laboratory is equipped with the necessary apparatus for surgical operations on animals and special courses of an elementary character in the technique of operation can be provided, or opportunity for research work on surgical problems may be given to persons who are satisfactorily qualified.

ORTHOPEDIC SURGERY.

- (1) Advanced instruction.
- (2) Research work.

Opportunity is offered to qualified physicians who wish to devote special attention to orthopedic surgery.

Applications can be made to Dr. E. H. Bradford, 133 Newbury Street, Boston.

HOURS AND FEES

Applicants for the above courses should make arrangements as to time and fees with the respective heads of departments. They should then register and pay their fees at the Dean's office.

COURSES OF STUDY FOR GRADUATES.

The Faculty has arranged, for graduates of recognized medical schools, an improved plan of instruction, embracing nearly all the branches of practical and scientific medicine. It is designed to supply good opportunities for clinical and laboratory study.

The laboratories of the School are well equipped for practical work, and the clinical advantages offered by the hospitals of Boston furnish

abundant material for all purposes of instruction. The following are the principal institutions:—

Massachusetts General Hospital, Children's Hospital,

Boston City Hospital, McLean Hospital (for the Insane),

Boston Dispensary, Boston State Hospital,

Massachusetts Eye and Ear Infirmary, Carney Hospital,
Boston Lying-in Hospital, Free Hospital for Women.

Infants' Hospital,

Instructors in the Medical School are members of the medical and surgical staffs of these institutions, to all of which students are admitted under their immediate supervision.

All regular lectures (not clinical) in the undergraduate department of the School are open to men doing graduate work during their connection with the School.

Instruction is conducted in small classes and under the personal direction of the heads of departments.

Instruction is given throughout the academic year, October to June.

FEES.

The fees for the separate courses in the several departments vary from \$5 to \$125.

An extra fee is required for the use of material in laboratory, dissecting, and operative courses.

Graduates seeking admission to any of the graduate courses must first register their names at the Dean's office at the Medical School, where all fees are payable, and obtain a receipt to be shown at the first exercise.

For further information and full description of the courses and lectures for graduates, address the *Dean*, Harvard Medical School, Longwood Avenue, Boston, Mass.

SUMMER COURSES OF INSTRUCTION

During the summer of 1910, courses in many branches of practical and scientific medicine will be given by teachers in the School. These courses will be clinical in character and will be given at the Hospitals and Dispensaries by the physicians and surgeons on duty. Practical instruction will also be given in several of the Laboratories of the School by the instructors in charge. These courses are open only to graduate and undergraduate students of medical schools recognized by the Faculty of Medicine, and to such others as the Dean of the Faculty approves.

A list of the Summer Courses will be announced early in the Spring. For further information address the Director of the Harvard Summer School of Medicine, Harvard Medical School, Boston, Mass.

The following are the Courses provided in the Graduate Department for 1909-10

Subject	Instructor	Place	Months during which Course is offered	Fee
Anatomy				
1. Special Anatomy Instruction	Prof. Dwight	Medical School	Special.*	Special.*
2. Anatomy of the Joints	Prof. Dwight	Medical School	Special,*	\$25.
3. Dissection Courses	Asst. Prof. Warren and Dr. Cheever	Medical School	Feb., Mar., April	15-30.
4. Surgical Anatomy of Abdomen	Dr. Cheever	Medical School	Feb., Mar., April	25.
5. Anatomy of Nose and Throat	Dr. Mosher	Medical School	Special *	25.
6. Genito-Urinary Anatomy, Male	Dr. Flagg	Medical School	Oct.—May	25.
7. Genito-Urinary Anatomy, Female	Dr. Flagg	Medical School	Oct.—May	25.
Comparative Anatomy				
†8. Elementary Human Histology and Embryology	Profs. Minot and Lewis, Drs. Bremer and Scammon, and Mr. Johnson	Medical School	Oct., Nov., Dec., Jan.	50.
49. Anatomy of Higher Vertebrates	Dr. Williams	Medical School	Oct., Nov. Dec., Jan.	50.
†10. Embryology of Vertebrates		Medical School	Feb., Mar., Apr., May	50.
†11. Advanced Histology	Drs. Bremer and Scammon	Medical School	Feb., Mar., Apr., May	50.
†12. Structure and Development of the Eye, Ear, and Nasopharynx	Prof. Minot and Dr. Williams	Medical School	Oct. and Nov.	25.
†13. Structure and Development of the Prof. Minot and Dr. Wil- Medical School Urogenital System	Prof. Minot and Dr. Wil- liams	Medical School	Oct. and Nov.	25.

25.	Special.*		Special.*	Special.*		No fee.		10.		25.		Special.*	25.	25.	25.
Dec. and Jan.	Special *		Oct.—May	Oct.—May		Oct.—May		Oct.—May		Special *		Special *	Feb.—May	Oct.—May	Oct.—May
Medical School	Medical School		Medical School	Medical School		Medical School		Medical School		Medical School		Med. Sch., Boston City and Mass. General Hosps.	B. C. H. and M. G. H.	Medical School	Danvers Insane Hospital
Prof. Minot and Dr. Will-liams			Prof. Cannon, Drs. Martin and Meigs	Prof. Cannon, Drs. Martin and Meigs		Prof. Porter		Prof. Folin and Dr. Hender- Medical School		Prof. Ernst		Profs. Councilman, Mallory, and Wright	Profs. Mallory and Wright	Prof. Southard	Prof. Southard
†14. Development and Histology of the Prof. Minot and Dr. Wil- Medical School Nervous System	†15. Research	Physiology	†16. Detailed Study in Physiology	†17. Research in Physiology	Comparative Physiology	+18. Experimental Work in Physiology	Biological Chemistry	†19. Advanced Individual Work	Bacteriology	†20. Research and General Laboratory Work in Bacteriology	Pathology	21. Research and General Laboratory Work in Pathology	†22. Pathology 1	†23. Pathology 2, Neuropathology	†24. Pathology 3, Neuropathology

[†] Women admitted. * When time and fee are "special," arrangements must be made with the instructor.

Asst. Prof. Tyzzer Medical School Asst. Prof. Tyzzer Medical School
Asst. Pro
Prof. Smith and Assistants
Dr Magrath
Dr. Magrath
Professor Rosenau
Prof. Pfaff and Dr. Tyrode
Drs. Tyrode and Williams
Dr. Palfrey

† Women admitted.

25.	25.	25.	25.	25.	25.	25.	20.	35.	5.	25.	30.	30.	20.	25.	20.	25.	35.	35.
Oct.—May	Oct.—May	Oct.—May	Oct.—Jan.	Oct.—Jan.	Oct.—May	Nov., Dec., and Jan.	Oct., Nov., and Dec.	April and May	Nov.—March	Jan.	Nov., Dec., and Jan.	Dec. and Jan.	October	Mar., Apr., and May	Nov., Dec., and Jan.	October	Jan., Feb., and Mar.	Oct., Nov., and Dec.
Carney Hospital and Medical School	Medical School	Medical School	Mass, General Hospital and Medical School	Medical School	Mass, General Hospital	Mass. General Hospital	Boston City Hospital	Carney Hospital	Mass, General Hospital	Mass. Gen. Hosp., O. P D.	Boston City Hosp., O. P. D.	Boston City Hosp., O. P. D.	Mass. Gen. Hosp., O. P. D.	Mass. Gen. Hosp., O. P. D.	Mass. General Hospital	Mass. Gen. Hosp., O. P. D.	Carney Hospital	Carney Hospital
Prof. Christian and Drs. Leen and Frothingham	Dr. Pratt	Dr. Frothingham	Dr. Hewes	Dr. Adler	Asst. Prof. Cabot and Drs. Hugh Cabot & O. Richardson	Dr. Vickery	Dr. Henry Jackson	Dr. Frothingham	Dr. A. K. Stone	Dr. J. M. Jackson	Dr. F. W. White	Dr. F. W. White	Dr. Badger	Dr. Pratt	Dr. Lord	Dr. Lee	Dr. Hawes	Dr. Wood
35. Theory and Practice 2	36. Theory and Practice 3	†37. Theory and Practice 4	38. Theory and Practice 5	39. Theory and Practice 6	40. Fourth-Year Elective in Clinical Medicine	41. Clinical Medicine	42. Clinical Medicine	13. Clinical Medicine	44. Clinical Medicine	†45. Clinical Medicine	†16. Disenses of the Digestive Organs and of Metabolism. — Dietetics. — Hematology	† 17. Clinical Medicine	48. Clinical Medicine	+49. Clinical Medicine	†50. Clinical Medicine	51. Clinical Medicine	†52. Clinical Medicine	†53. Clinical Medicine

^{*} When time and fee are "special," arrangements must be made with the instructor.

Fee		Special.*	Special.*	\$25.		30.		25.	25.	25.	Special.*	25.	25.	25.	25.	20.
Months during which Course is offered		Feb. and Mar.	April and May	Feb.—May		Oct., Nov., Jan., Feb., Apr. and May		Oct.—May	Oct.—May	Jan.	Dec. 1—June 1	Jan., Feb., and Mar.	Oct.—May	Jan.—May	Oct.—May	Dec. and Jan.
Place		Medical School	Medical School	Medical School		Mass. General Hospital		Hospitals and Medical School	Children's Hospital	Med. Sch. and B. C. H.	Medical School	Boston City Hospital	Boston City Hospital	Boston City Hospital	Medical School	Boston City Hospital
Instructor		Prof. Ernst	Prof. T. Smith	Asst. Prof. Tyzzer		Dr. Dodd		•	Prof. Burrell, Drs. H. W. Cushing and J. S. Stone	Asst. Prof. Nichols and Dr. F. L. Richardson	Asst. Prof. Nichols	Drs. Monks, Lund, and Faulkner	Dr. Paul Thorndike	Dr. J. B. Blake	Dr. Hubbard	Dr. Crandon
Subject	Tropical Medicine	†54. Bacteriology of Tropical Diseases	Medical Zoölogy	Protozoölogy	Roentgenology	57. Practical Course in Roentgenology	Surgery	Surgery 1	General Surgery of Children, 8 courses	Surgical Pathology	61. Research in Surgical Pathology	General Major Surgery	63. Major Genito-Urinary Surgery	Major Surgery	Operative Surgery	t66. Fractures and Dislocations
		154.	155.	56.		57.		58.	†59°	60.	61.	62.	63.	64.	†65.	166.

25.	30.	25.		50.		25.	25.	25.	25.		25.	25.	25.	25.	75. Special.*
Dec. and Jan.	Oct., Nov., Dec., Jan.	Special		Oct.—May		Oct.—May	Special *	Oct.—May	Oct.—May		Oct.—May Oct.—May	Oct.—May	Jan.	Apr., May	Oct.—May Special *
Boston City Hospital	Mass. General Hospital	Harvard Medical School		Children's Hospital Mass. General Hospital Carney Hospital		Boston Lying-in Hosp.	Boston Lying-in Hosp.	Medical School	Boston Lying-in Hosp. and Medical School		Boston City Hospital Boston City Hospital	Boston City Hospital	Boston Dispensary	St. Elizabeth's Hospital	Free Hospital for Women Free Hospital for Women
Dr. Crandon	Dr. F. Cobb	Dr. Monks		Profs. Bradford, Nichols, and Lovett, and Drs. Brackett, Thorndike, George, Osgood, Soutter, & Brown		The Department Staff	Address Prof. Green	The Department Staff	Address Prof. Green		Profs. Green and Newell, and Drs. Young, Friedman, and	Masour	Dr. Storer	Dr. Storer	Dr. Graves Dr. Graves
167. Surgical After-Treatment	68. Clinical and Operative Surgery	69. Operative Surgery	Orthopedic Surgery	470. General Orthopedic Surgery, 4 courses	Obstetrics	71. Clinical Obstetrics, 8 courses	72. Cinical Obstetrics, 8 courses	73. Operative Obstetrics, 8 courses	74. Clinical and Operative Obstetrics	Gynaecology	75. A Gynaecology, 8 courses B Gynaecology, out-patient, 8 Courses	A and B Gynaecology	76. Gynaecology	77. Operative Gynaecology	78. a. Gynaecology b. Gynaecology

* When time and fee are "special," arrangements must be made with the instructor.

†Women admitted.

Subject	Instructor	Place	Months during which Course is offered	Fee
	Profs. Rotch, McCollom, and Morse, Drs. Ladd, Dunn, Bowditch, Lucas, Sylves- ter, and Place	Infants', Children's, Boston City Hospital and Medical School	Oct.—May	\$25
	Prof. Bowen, Drs. C. J. White, Towle, and Burns	Mass. General Hospital	Oct.—May	25.
81. Advanced Dermatology, 4 courses	Prof. Bowen, Drs. C. J. White, Towle, and Burns	Mass. General Hospital	Oct.—May	50.
	Asst. Prof. Post and Dr. C. M. Smith	Boston Dispensary	Oct.—Jan.	25.
	Prof. Putnam, Drs. Taylor, Waterman, and Knapp	Mass. General Hospital and Boston City Hosp.	Oct.—May	15
	Dr. Taylor	Mass. General Hospital	Nov.—Feb.	20.
	Dr. Waterman	Mass. General Hospital	Oct.—May	20.
	Dr. Knapp	Boston City Hospital	Feb.—May	20.
87. Laboratory and Clinical Neurology	Dr. Taylor	Med. Sch., Mass. Gen. and Long Island Hosps.	Oct.—May	50-75.
	Drs. Cowles, Tuttle, and Noyes	McLean Hospital and Boston State Hospital	Oct.—May	25.

† Women admitted.

	Special.*	25.	25.	25.	Special.*		25.	50.	25.	25.	50.		25.	25.	25.	200
	Oct.—May	Feb.—Apr.	Special *	Nov., Dec., and Jan.	Special *		Feb.—May	Feb. and March	Oct.—Nov.	Nov.—June	Feb. and March		Oct.—May	Feb., March	Special *	Oct.—May
		Eye and Ear Infirmary	Medical School	Eye and Ear Infirmary	Medical School		Mass. Charitable Eye and Ear Infirmary	Mass. Charitable Eye and Ear Infirmary	Mass. Charitable Eye and Ear Infirmary	Mass, Charitable Eye and Ear Infirmary	Mass. Charitable Eye and Ear Infirmary		Mass. General Hospital	Medical School	Medical School	M. G. H., B. C. H., and Medical School
	Prof. Blake	Dr. Hammond	Dr. Knowles	Dr. Walker	Dr. Walker			Prof. Standish and Drs. Haskell and Clap	Dr. Quackenboss	Dr. Spalding	Dr. Verhoeff		Prof. Coolidge, Drs. Cobb, Clark, Goodale, and Mosher	Drs. Goodale and Barnes	Dr. Barnes	
Otology	89. Research in Otology	†90. Operative Otology	†91. Oper. Surg. of Temp. Bone	†92. Clinical Otology	93. Surgical Anatomy of the Tem. Bone	Ophthalmology	94. Fourth-Year Elective. Ophthal-mology	95. Ophthalmology	96. Ophthalmology, 2 courses	†97. Ophthalmology	†98. Ophthalmic Pathology	Laryngology and Rhinology	99. Diseases of the Throat and Nose	100. Pathology of the Nose and Throat	†101. Microscopic Pathology of the Nose and Throat	102. Combined course in Ophthalmology, Otology, and Laryngology

^{*}When time and fee are "special," arrangements must be made with the instructor,

SUMMER COURSES OF INSTRUCTION PROVIDED IN 1909

NO.	Subject	Instructor	Place	No. of Exer- cises	Begins	Ends	Days	Hour	Fee
	Anatomy								
-0	Applied Anat. of Nose and Throat Surgical Anatomy of Abdomen	Dr. Mosher Dr. Cheever	Medical School Medical School	175	Aug. 2 July 10	Aug.	27 M. W. F. Specialt Specialt	8-10P.M. 33-5	\$25 255 255
		do.	d d o	0000	Aug. 10 Aug. 20	: : :	Special† Special†	333	222
ಣ	Regional Anatomy do.	Dr. Cheever do.	Medical School	4 4 4 80 80 0	July 12 July 12	::	Special+ Special+	::	888
	do.	do.	900		July 26 Aug. 2	:::	Special† Special†	: : :	388
	do.	do.	do.		Aug. 16	::	Special	::	222
4	An. of male genito-urinary organs do.	do. Dr. Barney do.	Medical School do.		Aug. 25 July 2 July 19	25 July 9 19 July 23	M. Tu	33.	288
1	do.		do.	2020		Aug. 6	do.	3 -5	202
5	An. of fem. genito-urinary organs do.	Dr. Barney do.	Medical School do.	10 10 I		July 30	A. Tu	20 co	222
q	do. do.	do.	do.	ر ده ده		Aug.	13 do.	300	288
0	Anatonny of the Joints	Dr. Adams do.	Medical School	122	July 19	July 10		10-12	202
-	Anat, of Brain and Spinal Cord	Dr. Curran	Medical School	21	-	July	30 M. Tu.W.T.F.	2-2	25
	Comparative Anatomy								
00	Element, Histology & Embryology Dr. Bremer and	Dr. Bremer and	Medical School	23	July 6	6 July 31	Daily	9-1	25
6	Research in Histology and Embryology	Dr. Bremer and Mr. Johnson	Medical School	23	July 6	6 July 31	31 Daily	9-1	10

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	9-5		2-5		23-53 33-54 33-6	2-6		25-5-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6	000	404	9-12
	July 31 Daily July 31 Daily		July 30 M. Tu.W.T.F. Special		ly 30 M. Tu.W.T.F. ng. 31 M. Tu.W.T.F. ng. 14 Daily	ly 31 Daily 1g. 31 Daily	-	July 30 M. Tu.W.T.F. July 30 M. Tu.W.T.F. July 31 Daily	1g. 31 do.	ig. 31 Daily	p. 11 Daily
	1 Ju		1 Ju		1 July 2 Aug.	July 2 Aug.		1 1 Ju	2 Aug.	2 Aug.	2 Sep.
	July		June June July		July Aug. July	July Aug.		July June July July	Aug.	Aug.	Aug.
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	Medical School		Medical School Medical School		Medical School Medical School Medical School Medical School Childran's Hogh	B. Consump. Hosp. Medical School do.		Medical School Medical School do. Mass. Gen. Hosp.	do.	Medical School	Eye and Ear Inf.
	Dr. Martin		Prof. Folin and Mr. Bloor Prof. Folin		Dr. L. Frothingham Dr. Page Dr. Worthington Drs. Perry and Floyd	Dr. Tobey do.		Dr. Tyzzer Dr. Rhea do. Dr. Oscar Richardson	do.	Drs. Southard and	Dr. Verhoeff
Physiology	Practical Physiology	Biological Chemistry	Lab. Practice and Lectures in Bio-Prof. Folin and Mr. logical Chemistry Research in Biological Chemistry Prof. Folin	Bacteriology	Infectious Diseases of Animals Bacteriology Bacteriology Clinical Bacteriology	Tropical Medicine do.	Pathology	Tumors in Man and in Animals Pathology and Path, Technic do. Path, Anat, and Autop, Technic	do.	Neuropathology	ClinPath. Course in Dis. of Eye
	10		11 12		24113	17.		19 19 20		21	22

† Time to be arranged with instructor.

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Days		30 M. Tu.W.T.F. 31 do.		30 M.W.F.		June 14 July 13 Daily	July 14 Aug. 12 Daily	Daily Daily Mondays	26 do. 30 do. 28 Tu. W. Th. 30 M.Tu.W.T.F.	30 Daily 31 Daily	30 M. Tu.W.T.F. 31 do. 10 Daily 31 Daily 31 Daily	30 M. Tu.W.T.F. 30 do. 31 do.
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Place		Medical School do.		Medical School Medical School		Mass. Gen. Hosp.	do.	Mass. Gen. Hosp. do. Mass. Gen. Hosp.	do. do. Mass. Gen. Hosp. Mass. Gen. Hosp.	Medical School Mass. Gen. Hosp. Carney Hospital	Medical School Medical School do. Boston City Hosp. Boston City Hosp.	Medical School do.
Instructor		Dr. E. L. Walker do.		Dr. Tyrode Dr. Tyrode		Dr. R. C. Cabot	do.	Dr. R. C. Cabot do. Drs. W. H. Smith, R. I.	Lee and O. Kichardson do. Dr. W. H. Smith Drs. Hewes and C.	Frothingham, Jr. Dr. Pratt Drs. Leen, Robbins and	Dr. C. Frottningham, Jr. Dr. C. Frottningham, Jr. Dr. F. W. White Dr. Robey Dr. Adler	Dr. Overlander do. do.
Subject	Comparative Pathology	Medical Zoölogy do.	Pharmacol, and Therapeutics	Experimental Pharmacology General Therapeutics	Internal Medicine	Physical Diagnosis	do.	elation to Post-	Morten Findings do. do. Practical Therapeutics Clinical Pathology	Clinical Medicine Clinical Medicine and Clinical	Fathology Clinical Pathology Diseases of the Digestive Organs Physical Diagnosis Medical Diagnosis	Lab. Course in Clin. Diagnosis do. do.
No.		23		254		26		27	29	31	33 33 33 35 4	37

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	11-0001118 \$4.00111445		$\begin{array}{c c} 9-12 \\ 2\frac{1}{2}-5 \\ 9-12 \\ 2\frac{1}{2}-5 \end{array}$		10-12	9-12 10-12 10 10 10 10
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	Infants' Hosp. Childran's Hosp. Infants' Hosp. Childran's Hosp. Childran's Hosp. Childran's Hosp. Childran's Hosp. Infants' Hospital Infants' Hospital Childran's Hospital Childran's Hospital Childran's Hospital Childran's Hospital Childran's Hospital Childran's Hosp. Griddran's Hosp. Griddran's Hosp. Childran's Hosp. Childran's Hosp. Childran's Hosp.		Mass. Gen. Hosp. Children's Hosp. Mass. Gen. Hosp. Children's Hosp.		City Hospital	City Hos. & H.M.S. City Hospital City Hospital do. do. do.
	Dr. Ladd Dr. Lucas Dr. Lucas Dr. Lucas Dr. Dum Dr. Morse Dr. McCollom Dr. McCollom Dr. Lucas Dr. Lucas Dr. George Dr. McCollom Dr. Tablot Dr. Tablot Dr. Tablot Dr. Tablot Dr. Fairbanks Dr. George Dr. McCollom Dr. Tablot Dr. Tablot Dr. Tablot Dr. George		Dr. Dodd Dr. George Dr. Dodd Dr. George		Drs. Lund and Nichols, assisted during July by Dr. F. I. Richardson	do. do. do. do. do.
Pediatrics	Pediatrics	Roentgenology	Röntgenology do.	Surgery	Major Clinical and Operative Surgery, with, during July, Surgical Pathology	
	800 4 444444444440000000000000000000000		55		56	57

† Time to be arranged with instructor.

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Fee	83 3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$50
Hour	100-110	Spec'l† \$50
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Place	Mass. Gen. Hosp. do. Gity Hospital do. Medical School do. do. Go. Go. Go. Go. Go. Go.	Children's Hosp. Boston Dispensary Warren Museum Carney Hospital Mass. Gen. Hosp.
Instructor	Drs. Porter and Jones Dr. Scannell do. Dr. Scannell do. Dr. Hubbard do. Dr. Faulkner, Crandon, Bedical School do. Dr. Stone and volunteer do. do. do. Dr. Macient Surgeons do. do. Dr. O'Neil Dr	Profs. Bradford and Lovert, and Drs. Brackett, Goldthwart, A. Thorndike, Nichols, Osgood, Soutter, Brown, George, Adams, and Bucholz do.
Subject	Major Clinical Surgery do. do. do. Operative Surgery on Animals do. Operative Surg. on the Cadaver do. do. do. do. do. do. do. do	Orthopedic Surgery do.
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	Dr. Swain, assisted by Drs. Friedman, Tor- bert, and Mason Dr. Swain Dr. De Normandie Dr. Torbert		Dr. Young, do. do. Dr. Friedman Dr. Friedman	Dr. Mason do. do. Dr. Rushmore Dr. Rushmore do.		Dr. White do. Dr. Burns		Drs. Post and C. M. Smith	do.		Drs. Putnam, Taylor, Waterman
Obstetrios	Clinical Obstetrics a. Clinical Obstetrics do. b. do.	Gynaecology	1 Treatment 10. 10. Diagnosis and	Minor Chaecology do. do. Gynaecology do. Gynaecology do. do. do. do. do. do. do. do. do.	Dermatology	Clinical Dermatology do.	Syphilis	Syphilis	do. do.	Neurology	Neurology
	99		69 70	72 73		74		92			77

† Time to be arranged with instructor.

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Days		Daily Daily Daily Daily Daily		Daily do. Daily Daily M. W. F.		Daily Daily Daily Daily M. W. F. M. W. F. M. Tu. W. T.F. do. Daily Daily Daily Daily Daily
Ends		2 2 2 Sept. 11		2 Aug. 31 Daily do. 2 Sept. 30 Daily 2 July 28 M. W.		
Begins		June 1 July 1 Aug. 2 Sept. 1 Aug. 2		June 1 July 1 Aug. 2 Sept. 1 July 2 Sept. 1		June 1 June 1 July 2 Sept. 1 June 2 June 2 June 1 June 1 June 1 June 1 Aug. 2
No. of Exer- cises		22 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		442 256 125 122 122		4 444211100 000 044
Place		Eye and Ear Inf. Bye and Ear Inf. do. Eye and Ear Inf.		Eye and Ear Inf. Eye and Ear Inf. One of the control of the cont		Mass. Gen. Hosp. do. do. do. do. Boston City Hosp. do. do. Medical School Medical School See pages 49–51 See pages 49, 50 See pages 49, 50 See pages 49, 50
Instructor		poss		Drs. Crockett & Knowles Eye and Ear Inf. Or. Mosher Or. Mosher Or. Hammond Medical School Dr. Knowles		Goodale, Jr. Greene, Jr. le, Mosher, 51, 50, 51, 50, 50, 51, 50, 50, 51, 50, 50, 51, 50, 50, 51, 50, 50, 51, 50, 51, 50, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 50, 51, 51, 50, 51, 51, 50, 51, 51, 50, 51, 51, 50, 51, 51, 50, 51, 51, 50, 51, 51, 51, 51, 51, 51, 51, 51, 51, 51
Subject	Ophthalmology	Clinical Ophthalmology Clinical Ophthalmology Clinical Ophthalmology Dr. Quacken Do. Quacken Dr. ClinPath. Course in Dis. of the Eye	Otology	Operative and Clinical Otology do Clinical Otology Clinical Otology Surgical Anatomy of the Ear Op. Surg. of the Temporal Bone	Larynology and Rhinology	Laryngology and Rhinology do. do. do. do. do. do. do. do
No.		78 79 22		83 83 83		86 85 85 89 99 99 99 99 99 99 99 99 99 99 99 99

† Time to be arranged with instructor.

TABULAR VIEW

 \mathbf{OF}

UNDERGRADUATE COURSES

TABULAR VIEW OF UNDERGRADUATE COURSES

FIRST YEAR - First Half-Year

	Monday. Tuesday.	Wednesday.	THURSDAY.	FRIDAY.	SATURDAY.
Dешо	October. Anatomy. Lecture. November, December. Demonstrations and Laboratory Work.	Oct., Nov., Dec., Anatomy. Lecture.	Octo Anatomy. November, Demonstrations and	October. Anatomy. Lecture. November, December. Demonstrations and Laboratory Work.	Oct., Nov., Dec., Histology. January, 9-11. Anatomy. Lecture.
	October, Demons	October, November, December, January. Demonstrations and Laboratory Work.	January. y Work.		Oct., Nov., Dec., Jan. 11-1. Anatomy. Lecture.
	Lectures, D	January. Lectures, Demonstrations, and Laboratory Work.	oratory Work.		

2-2.30	October, November, December. Histology. Lecture.
2.30-6	Histology. Laboratory.

FIRST YEAR. -- Second Half-Year

PHYSIOLOGY. FEBRUARY

9-10 10-1 10-12.15 12.15-1 2-8 3-5.30

SECOND YEAR. - First Half-Year.

JANUARY.	Monday, Wednesday, and Friday. Surgery. Clinical Lecture. Nichols. B. C. II.	9-12 Tuesday, Thursday, and Saturday. 10.30-12 Monday, Wednesday, and Friday. Pathology. Laboratory.	Pathology. Lectures. Daily.	Daily exemt Saturday.	Surgical Pathology. Laboratory. Nichols.
	9-10	9-12	12-1		g.
D есемвев.	2 and 3 weeks. Pathology of certain Parasitic Diseases. Laboratory.			fthe Nerrous	System. Laboratory. Southard.
DECE	1 week. Pathology. Laboratory. Daily.		ly.	Pathology o	Laboratory
NOVEMBER.	Pathology. Laboratory.		Pathology. Lectures. Daily.	Bacteriology. Lectures. Daily except Saturdays.	Bacteriology. Laboratory. Daily except Saturdays.
OCTOBER.	Pathology.		Pathc	Bacteriolog Daily excej	Bacteriology Daily exce
	9-12		12-1	2-3	3-5.30

SECOND YEAR. - Second Half-Year.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
	М. G. H.	M.G. II.	В. С. Н.	M. G. H.	M. G. II.	В.С. П.
9-10	Clinical Medicine Clinic Shattuck	Surgery Clinic M. H. Richardson	Surgery Clinic Lothrop	Theory & Practice Clinic Badger	Surgery Clinic M. H. Richardson	Clinical Medicine Clinic Jackson
10-11						Surgery Clinic J. B. Blake
11–12	<i>S</i> 2	Section Work				
1-3	3	Clinical Pathology				
3.4	Surgical Technique 6 lectures Lothrop Room 201	Theory&Practice. L. Christian Room 201			Theory&Practice. L. Christian Room 201	
4-5	Surgery, L. Room 201	Materia Medica and Pharmacology L. & R. Tyrode.	Pharmacology. L.	Surgery, L. Room 201	Pharmacology. L. Pfaff	
5-8	Hygiene. L. Rosenau	Surgery. L. Room 201	Hygiene. L. Rosenau	Hygiene. L. Kosenau	Surgery. R. Lothrop and Greenough Room 201	

THIRD YEAR. - First Half-Year.

MONDAY.	Class Theory and Practice Clinic Hewes, M. G. H.	Surgery Clinic M. H. Richardson M. G. H.	Sections 11-1	2-3	Obstetrics. Green Room 205	4-5 Surgery, L. Room 201	5-6 Standish Dec., Jan. Dec., Jan. Dec., Jan. Orthopedics
AY.	Practice ic . G. H.	Clinic hardson H.			s. L. 205	. L.	Oct., Nov. hthalmology Standish Dec., Jan. rthopedics
TUESDAY.	Clinical Medicine Clinic Sears, B. C. H.	Clinical Surgery Clinical L. Burrell, B. C. H.			Theory and Practice L. Christian Room 201	Dermatology. L. Bowen, Room 201 Dev., Jan. Syphilis. L. Post, Room 205	Oct., Nov. Surgery. R. Lothrop and Greenough Dec., Jan.
WEDNESDAY.	Clinical Medicine Clinic Shattuck, M. G. H.	Dermatology Clinic Bowen, M. G. H.	Section		Obstetrics Conference Swain Room 205	Surgery. L. Room 201	Oct., Nov. Ophthalmology Standish Dec., Jan. Orthopedics
THURSDAY.	Neurology Clinic Taylor, M. G. H.	Theory and Practice Clinic, Stone, Lee, or Lord, M. G. H.	Section Work.		Obstetrics. L. Green Room 205	Pediatrics. L. Rotch Room 201	GU. Surgery. L. Thorndike Dec., Jan. Surgery. R.
FRIDAY.	Clinical Medicine Clinic Sears, B. C. H.	Pediatrics Clinical L. Rotch, C. H.		Theory and Practice L. Christian, Room 201	Obstetrics. R. Newell Room 205	Therapeutics. L. Pfaff	
SATURDAY.	Clinical Medicine Clinic Shattuck, M. G. H.	Theory and Practice Clinic Pratt, M. G. H.					

THIRD YEAR. -- Second Half-Year.

SATURDAY.	Clinical Medicine Clinic Shattuck, M. G. II.	Theory and Practice Clinic Pratt, M. G. H.			Psychiatry Clinic Cowles, B.I.H.		
FRIDAY.	Clinical Medicine Clinic Sears, B. C. H.	Feb., Mar. Pediatrics Clinical I Rotel, C. H. Morse, C. H. Apr., May Syphiis Clinical I Post, B. D.		Psychiatry Cowles Room 201	Obstetrics. R. Newell Room 205	Gynaecology. L. Green Room 205	
THURSDAY.	Clinical Medicine Clinic H. Jackson, B. C. H.	Clinical Surgery Clinical L. Burrell or Monks B. C. H.	Section Work.	Municip. Sanita. Durgin Room 207	Obstetrics. L. Green Room 205	Laryngology Lecture Coolidge, Room 205	Otology Lecture C.J.Blake, Room 205
WEDNESDAY.	Neurology Clinic Putnam, M. G. H.	Dernatology Clinic Bowen, M.G.H.	Section		Obstetrics Conference Swain, Room 205	Gynaecology L. or R. Green, Room 205	Clinical Medicine Case Teaching Cabot Room 205
TUESDAY.	Clinical Medicine Clinic H. Jackson B. C. H	Clinical Surgery Clinical L. Burrell, B. C. H.			Surgery Case Teaching J. B. Blake	Pediatrics. L. Rotch Room 201	Clinical Medicine Case Teaching Cabot Room 205
Monday.	Neurology Clinic Putnam, M. G. H.	Surgery. Clinic C. A. Porter M. G. H.		Municip. Sanita. Durgin Room 207	Obstetrics. L. Green Room 205	Pediatrics. L.&R. Morse Room 205	Feb., Mar. Otology Lecture C.J.Blake, Room 205 Apr., May Laryngology Lecture Coolidge
	Class Exercises 9-10	10-11	Sections 11-1	2-3	3-4	4-5	5-6

DEGREES

ON MARCH 3, 1909, DEGREES WERE CONFERRED AS FOLLOWS: -

M.D.

Conrad Bell, A.B. 1900. William Campbell Emery. Ralph Weare Tuttle, s.B. 1905.

On Commencement Day, June 30, 1909, degrees were conferred as follows:—

M.D.

Thomas Almy, A.B. 1905.

Harold Bowditch, A.B. 1905.

Francis Gorham Brigham, s.B. (Colgate Univ.) 1905.

Newell Bly Burns, A.B. 1905.

Solon Washington Cornish, A.B. (Dartmouth Coll.) 1905.

Thomas Francis Crowley, A.B. (Boston Coll.) 1903.

Ora George Daniels, A.B. (Tufts Coll.) 1900, A.M. (Gallaudet Coll.) 1901.

Nelson Clifton Davis, s.B. 1905.

Ralph Waite Dennen, A.B. 1905.

Michael Bernard Fox, A.B. (Clark Univ.) 1905.

Walter Thompson Garfield, s.B. 1906.

Albert Alphonso Wood Ghoreyeb, A.B. (Syrian Protestant Coll.) 1904.

Reverdy Morriss Hall, Jr., A.B. 1905.

John Joseph Healey, Ph.B. (Brown Univ.) 1905.

Henning Vitalis Hendricks, s.B. (Worcester Polytechnic Inst.) 1903.

James Joseph Hepburn, A.B. 1906.

Martin Heydemann.

Arthur Allison Howard, Ph.B. (Brown Univ.) 1905.

Roscoe Cadwell Hunt, A.B. (Carleton Coll.) 1905.

Daniel Joseph Hurley, A.B. 1905.

George William Stanley Ish, A.B. (Yale Univ.) 1905.

Philip Thomas Kennedy, A.B. (Trinity Coll.) 1905.

Edward Philip Laskey, s.B. (Dartmouth Coll.) 1904.

George Aloysius Lyons, A.B. (Boston Coll.) 1905. Edward Francis McKenna, A.B. (Brown Univ.) 1905.

Andrew Louis MacMillan, Jr., A.B. (Dartmouth Coll.) 1905.

John Joseph Madden, PHARM.D. (Mass. Coll. of Pharmacy) 1903.

William Andrew Noonan, A.B. 1906.

James Vincent O'Keeffe, A.B. 1905.

John Eliot Overlander, PH.B. (Yale Univ.) 1905.

Willard Stephen Parker, A.B. 1906.

Arthur Lionel Patch, A.B. (Brown Univ.) 1904.

Frank Arthur Pemberton, s.B. 1906.

George Aloysius Power, A.B. (Holy Cross Coll.) 1905.

Horatio Whittemore Pratt, s.B. 1905.

William Emerson Preble, A.B. (Bowdoin Coll.) 1898.

Wilfred Ellsworth Rounseville, s.B. (Amherst Coll.) 1905.

Edwin Field Sampson, s.B. 1906.

Duncan Campbell Smyth, A.B. (St. Francis Xavier Coll.) 1905.

Francis Guy Stanley, s.B. (Mass. Agricultural Coll.) 1900.

Edgar Clifford Steinharter, s.B. (Mass. Institute of Technology) 1906.

Raymond Stanton Titus, A.B. 1905.

Frederick Joseph Wilkiemeyer, A.B. (Christian Brothers' Coll.) 1904. Edward Lorraine Young, Jr., A.B. 1906.

M.D. cum laude

Reginald Fitz, A.B. 1906.

Hugh Payne Greeley, A.B. 1906.

Eugene Sterling Kilgore, s.B. (Univ. of California) 1904.

Donald Macomber, A.B. 1906.

Mather Humphrey Neill, A.B. (Amherst Coll.) 1905.

William Duncan Reid, A.B. 1906.

Loring Tiffany Swaim, A.B. 1905.

Harrison Briggs Webster, A.B. 1905.

ADMISSION EXAMINATION

June, 1909

CHEMISTRY

INORGANIC CHEMISTRY.

One hour.

- 1. Describe silver bromide, potassium chromate, silicic acid, nitrous oxide.
 - 2. Write reactions for the commercial preparation of sulphuric acid.
- 3. Describe in detail the process of purification by crystallization, explaining the importance of the several manipulations.
 - 4. Discuss the classification of the elements.

ORGANIC CHEMISTRY.

One hour.

Write all constitutional formulas.

- 1. Describe the general characteristics of the parafine hydrocarbons.
- 2. Describe the properties and the reactions of lactic acid.
- 3. Write the constitutional formulas of chloroform, benzol (benzene), para-nitro toluol, acetone, butyric acid.
- 4. Discuss fully the differences between organic esters and inorganic salts.

EXAMINATION PAPERS

(Annual Examinations, 1909)

First Year Studies

ANATOMY. - Professor Dwight

- 1. Describe briefly the differences of (a) the body; (b) the spinous process; (c) the transverse processes; (d) the articular processes of a typical cervical, thoracic, and lumbar vertebra.
 - 2. Describe the arrangement of the bones of the tarsus.
- 3. Describe the roots of the lungs, giving the arrangement of the different structures.
 - 4. Describe the duodenum and its relations.
 - 5. Describe the course of the fillet in the medulla, pons, and mid-brain.
 - 6. Give the course, relations, and distribution of the hypoglossal nerve.

HISTOLOGY AND EMBRYOLOGY. -- Professor MINOT

[Each student is given four sections to correspond with the first four questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

Questions 1, 2, and 3 are for both Medical and Dental students.

- 1. Draw the lymphoid tissue with high power. Define it. Describe its relations to the other parts shown in the section.
- 2. What is the specimen? Make drawings to show on what your identification is based.
 - 3. (a) What is the specimen? Make drawings to show on what your identification is based.
 - (b) Describe the blood supply.
- 4. (For Medical students only.) Draw four kinds of nuclei, illustrating in order their successive changes during spermatogenesis.
- 5. (For Medical students only.) Describe the development of the kidney.
 - 6. (For Dental students only.)
 - (a) Describe the enamel organ of an incisor.
 - (b) Describe the structure of a salivary gland.
 - (c) Describe the "teething" of the praemolars.

PHYSIOLOGY. - Professor Cannon

[Answer any five questions. Mention, where possible, experimental evidence in support of your statements.]

- 1. Discuss the influence of temperature changes on skeletal and cardiac muscle.
- 2. With reference to the functioning of the nervous system define and illustrate "after discharge," "irreversible conduction," "inhibition," "facilitation," "graded synaptic resistance," "associative memory."
- 3. Describe the changes of irritability of heart muscle during a cardiac cycle, and consider the relation of these changes to the production of the rhythmic heart-beat and the direction of the contraction wave.
 - 4. Discuss the factors concerned in biological haemolysis.
 - 5. Discuss the influences normally affecting the respiratory centre.
 - 6. Consider the means by which body temperature is regulated.

BIOLOGICAL CHEMISTRY. - Professor Folin

- 1. Describe the phenylhydrazine test for sugar and explain its practical importance.
 - 2. Compare starch and glycogen.
 - 3. What is butter?
- 4. Write the constitutional formulas of three of the following substances: glycocoll, glycerine, lactic acid, hippuric acid.
 - 5. Discuss the absorption of fat.
 - 6. Discuss ammonia as a metabolism product.
 - 7. Discuss nitrogen equilibrium.
 - 8. Describe the synthetic preparation of urea.
 - 9. Why is it possible to pump the carbonic acid out of blood?
 - 10. State the chief characteristics of enzyme reactions.

Second Year Studies

BACTERIOLOGY. - Professor Ernst

- 1. Describe the Pneumococcus, including the microscopical, biological, and pathogenic properties.
- 2. How would you carry out the bacteriological diagnosis of typhoid fever?
- 3. What is active acquired immunity; how is it obtained, and what are its characteristics?

PATHOLOGY. - Professor Councilman

1. What is the average weight of the adult heart in the male and in the female? What are the chief causes outside of the heart which give rise to heart hypertrophy? How do they act in so doing? Give the gross and histological changes in the lungs in a case of stenosis of the mitral valve.

- 2. Diphtheria: Where do the primary local lesions most commonly occur? Give the histology of these lesions. Describe the lesions produced elsewhere in the body in the course of the disease. To what are these lesions due?
- 3. Give the pathological findings in typhoid fever, including both the gross and the histological lesions.
- 4. Describe the different ways in which metastases of tumors are produced. How would you differentiate the following tumors: Glioma, leiomyoma, and fibroma?
- 5. Thrombi: Where and how are they formed? What local conditions and what conditions of the circulation favor their formation? Describe the histological condition in an infarction of the kidney.
- 6. Describe the mode of formation of an abscess due to the staphylococcus aureus. How is healing of the abscess brought about?
- 7. What is leucocytosis? Under what conditions is it produced? Describe the gross and histological condition of the liver in myelogenous leucaemia.
- 8. Describe, illustrating by diagram, the site and nature of the spinal cord lesions frequently associated with pernicious anaemia. What is the condition of the nerve roots in this disease?
- 9. Describe the complete life cycle of Trichinella spiralis and the pathological changes produced by it.
- 10. Describe the infecting machinery in malaria, sleeping sickness, yellow fever, and tick fever.

HYGIENE. - Lecturer CHAPIN

1. What pathogenic organisms grow in the soil?

What relation has the soil to the causation of infectious diseases?

- 2. How numerous are "missed cases" and "carriers" of diphtheria? How important a factor are they in the extension of the disease?
- 3. How important is contact infection in typhoid fever, cholera, diphtheria?
- 4. How important are fomites in the spread of the common infectious diseases?
- 5. What evidence is there that air is not so important a factor in the transmission of disease as was at one time supposed?
 - 6. How is bubonic plague spread?
- 7. What diseases may be spread by milk, and what is the source of infection for each?
 - 8. What diseases in New England are spread by water? What kind of filters are efficient and what kinds are not?
- 9. What can you say about the influence on health of an excess of atmospheric moisture?
 - 10. How should a privy and its vault be constructed?

Third Year Studies

MATERIA MEDICA AND THERAPEUTICS. - Professor Praff

- 1. Give general methods of treatment of cases of acute poisoning, and how do they differ from those employed in cases of chronic poisoning?
- 2. State uses of atropine and explain the same by the pharmacological action of the drug.
 - 3. Action of quinine.
 - 4. Action of colchicine.
 - 5. Action of aconitine.
 - 6. General treatment of case of diabetes mellitus.
 - 7. Give treatment of a case of acute dilatation of the heart.
 - 8. How treat a case of dilated stomach with retention of food.
- 9. Write prescriptions for the following drugs, avoiding abbreviations, and give direction in full to patient: (a) magnesium sulphate; (b) potassium citrate; (c) chrysarobin; (d) carbolic acid; (e) ergot; (f) bismuth carbonate.

THEORY AND PRACTICE. - Professor Christian

- 1. Discuss the diagnosis and treament of duodenal ulcer.
- 2. Give in detail the management of a case of typhoid (a) during the second week of the disease, and (b) during the week of convalescence.
 - 3. Discuss the etiology and diagnosis of pleurisy with effusion.
- 4. Enumerate the causes of ascites and explain the pathological physiology of its various forms.
- 5. Discuss the relations of blood pressure to cardio-vascular and renal disease and the significances of blood pressure changes.
- 6. Give the symptoms of chronic myocarditis and discuss its treatment (write prescriptions for drugs used).
- 7. Purpura, discuss it as a disease entity, and as a part of various symptom complexes.
 - 8. Uncinariasis, diagnosis and treatment.
 - 9. Discuss the diagnostic significance of haematuria.
- 10. Describe the procedure for a clinical chemical analysis of the gastric contents after a simple test meal.

CLINICAL MEDICINE. - Professor SHATTUCK

[Discuss these cases in the order in which they are arranged. Assume that symptoms not mentioned are wanting; but as omissions, intentional or not, may occur, state them if essential. The intelligent discussion of the case will have more weight than a hasty and inconclusive, though correct, diagnosis. Write out all prescriptions in full.]

Case 1.—A Jewish boy of 18 is seen June 19. His family and previous history are unimportant. His illness began in the previous November, when he was troubled for two weeks by pain in the right loin and right back together with dizzy headaches and weakness in his legs. He had a

similar but milder attack in the latter part of December. Since January 20 he has suffered from constant pain in the right side, frequently catching him with a severe stitch on inspiration. The pain occasionally shoots down toward the groin or up toward the epigastrium. His urine is usually clear; but is sometimes stained red and full of floating particles. He has gained in weight but lost in strength since February. On June 12 his urine showed a slight trace of albumin with many leucocytes and blood cells in the sediment. On June 19 physical examination was negative except that the right rectus abdominalis was spastic and there was tenderness over the right side, most marked at the edge of the ribs in the nipple line and in the right iliac fossa.

At the time of this examination the lower edge of the right kidney was palpable on deep inspiration and there was slight tenderness along the lower dorsal and lumbar spine. The movements of the spine were free. He had no fever and no increase in the leucocytes. The urine varied greatly in gravity, being twice below 1008 and three times above 1020 within 24 hours. It always contained a very slight trace of albumin and in the sediment a very small number of blood cells and leucocytes. One specimen showed a small blood clot, the size of a bean. Cystoscopy was done on June 26 and showed on the floor of the bladder "a brownish cylindrical putty like plug." The orifice of the right ureter was greatly dilated and a little pus was seen to issue from it. A strong clear stream of urine issued from the other ureter.

Diagnosis? Prognosis? Treatment?

Case 2. — A painter, 36 years old, of good family history, is admitted to the hospital on the morning of February 28. His previous history was uneventful, except for an attack of painter's colic six years ago and occasional attacks of indigestion. For the past twelve years he has spent the winter in Florida, from which he returned one week ago, owing to the onset of his present illness. He was in his usual health up to fourteen days ago, when he began to have chilly sensations, but without pronounced chill, accompanied by fever. These "chills," as he called them, recurred nearly every morning about seven o'clock. He has complained also of loss of appetite, slight nausea, malaise and headache. The bowels have been constipated. He has been confined to bed since his arrival in the North, and the journey home was most uncomfortable.

The patient is flushed, rather apathetic. The tongue is somewhat dry and covered with a fairly thick white coating. Examination of the lungs The heart is normal in size and position; no murmurs are heard. The abdomen is not markedly distended, but is everywhere tympanitic. Over its upper portion three small pink papules are seen, the color disappearing on pressure. The edge of the spleen can just be felt on full inspiration. Physical examination is otherwise negative. Pulse 80, of good volume and tension. Temp. 102.4°. Resp. 22. A single examination of the blood shows no organisms. Bile test and Widal reaction negative. Leucocytes 5000. Urine, sp. gr. 1024, acid, high colored, no

sugar, no albumin.

Diagnosis? Prognosis? Treatment?

Case 3. — A manufacturer, 60 years old, is seen March 23. Family history negative. His general health has always been good, except for several attacks of gout, which have occasionally incapacitated him for several months at a time. For the past four years he has been working hard with inadequate vacations. He has not been feeling quite as well as usual for the past two weeks, and has complained of a little pain and stiffness in the right calf, which improved after exercise. One week ago, he noticed as he started for his office that his right garter felt uncomfortably tight. After walking for about two blocks at his customary gait, he was suddenly attacked by dyspnoea, which was so severe that he panted for breath. This was accompanied by a slight cough. He made the rest of the way to his office in a cab. An hour later he felt as well as before. Yesterday his right leg below the knee was rather painful all day, and toward evening he felt chilly and sat by the fire till bed time. He noticed on undressing that the calf was swollen and felt hard. He passed an

uncomfortable night on account of pain.

The patient is somewhat over weight and rather pale. The peripheral arteries are slightly thickened. Lungs normal. The heart's apex is in the fifth space in the nipple line; the right border is in the normal situation. The aortic second sound is accentuated. No murmurs heard. The right leg from just below the knee to the ankle looks dusky, and the veins appear enlarged and prominent. It is much swollen and feels hard and brawny, pitting somewhat on pressure. There is no special tenderness, except in the lower part of the popliteal space, where pressure produces a little pain. The joints of both big toes are thickened and red, but are not tender. Physical examination is otherwise negative. Pulse 76, of good quality. Temp. 98.8°. Resp. 18.
Urine, sp. gr. 1022, acid, high colored, no sugar, no albumin. Con-

siderable uric acid and urates in the sediment.

Diagnosis? Prognosis? Treatment?

PEDIATRICS. — Professor Rotch.

[More credit will be given to an intelligent discussion of the case than to a correct diagnosis unsupported by such discussion.]

1. Discuss the following case, giving the differential diagnosis, prognosis, and treatment: -

A girl, three years old, had always been well. There was no tuberculosis in the family and no known exposure to tuberculosis. Early in March she began to complain of being tired and had a poor appetite. At times she was a little feverish. About the first of April she was taken to a physician who on examination found nothing abnormal and who regulated the diet and prescribed a tonic. She seemed better for a few days but on April 7th and 8th complained again of being tired. Since then she has been better for a day or two and then worse again for a day or two. April 14th she vomited for the first time. She was seen by another physician who looked her over carefully and found nothing abnormal. Her temperature was then 99° F. The next day she had a convulsion lasting three hours. After coming out of the convulsion her temperature was 98.6° F. Since then she has been running an irregular temperature, the highest being 102° F. She was very sleepy for several days after the convulsion, but on April 18th seemed very much better. On the 19th she sat up in bed and seemed very much like herself. She became very drowsy that night. She slept all the day of the 20th but could be aroused and when aroused was conscious. She slept well on that night and on the morning of the 21st was more drowsy than she had been the day before.

Her appetite had been poor but she had eaten when urged to. She had not vomited. There had been a tendency to constipation. The bowels, however, had been kept open with laxatives and enemata and the movements were well digested. She had complained of pain in the head at times. The ears had not been examined. She had been perfectly clear mentally when awake but had occasionally been irritable. The urine had been examined several times and had never contained albumin, sugar, nor acctone. The sediment had shown nothing except urates.

Blood: examined April 20th showed white corpuscles, 7,800; small mononuclears, 26%; large mononuclears, 6%; polynuclear neutrophiles,

67%; eosinophiles, 1%.

She was seen at 10 A.M. on April 21st.

Physical Examination. - She was well developed and nourished and of good color. She was sound asleep but could be aroused. When aroused she looked about and was perfectly intelligent. She put out her tongue and turned over when asked to. She recognized her family. She instantly relapsed into sleep again, however. There was no rigidity of the head or neck. The pupils were equal and reacted to light. She protruded the tongue in the median line. The tongue was but little coated. The membranae tympanorum showed nothing abnormal. The heart and lungs were normal. The abdomen was a little sunken. There was no tenderness, spasm, nor tumor. The liver and spleen were not palpable. The extremities were normal. There was no spasm or paralysis. The knee jerks were equal and not exaggerated. Kernig's sign was absent. There was no hyperaesthesia but the vasomotor reaction of the skin was unusually active. There was no enlargement of the peripheral lymph nodes. There was no efflorescence. The temperature was 100° F.; the pulse was very irregular in rhythm, varying from 80 to 140; the respiration was Cheyne-Stokes in character.

- 2. It is desired to give a baby 8 feedings of 4 ounces of a mixture containing 3% of fat, 7% of sugar, and 1.20% of proteids, the lime water to be 25% of the cream and skim milk in the mixture. The mixture is not to be pasteurized. It is necessary to prepare the mixture at home. Write out the directions which you would give to the mother.
- 3. What are the significant points in a physical examination in reference to eliminating the acute exanthemata and diphtheria?
 - 4. (a) At what age does the anterior fontanelle close?
 - (b) At what age is the amyolitic function fully developed?
 - (c) At what age is the first dentition completed and when does the second begin?
- 5. Describe the most characteristic symptoms of congenital syphilis during the first three months of life. State which symptoms are considered the most grave.
- 6. Give the differential diagnosis between pulmonary consolidation and pleuritic effusion in infancy and state the relative importance of the different physical signs as compared with their importance in adult life.

SURGERY. - Professor Burrell

- 1. Describe the common deformities seen in rickets.
- 2. Describe a frost bite and a burn.
- 3. Enumerate the various lesions that may occur from trauma to the elbow joint.
- 4. Fracture of patella. Treatment.
- 5. Describe a cancer of the tongue.
- 6. Symptoms of acute peritonitis due to perforation of the viscera in the upper half of the abdomen.
- 7. Indications for removal of gall-stones from the bile tract.
- 8. Contra-indications to removal of an enlarged spleen.
- 9. Symptoms and treatment of a hemorrhage from the middle meningeal artery.
- 10. Give the treatment of shock.

CLINICAL SURGERY. - Professor RICHARDSON

1. Twenty-three years ago, Mrs. P., aged 57, is said to have had an acute attack of severe abdominal pain, accompanied by vomiting and followed by tenderness in the right upper quadrant. Convalescence after this attack was slow. Her physician at this time said that she was threatened with inflammation of the bowels. Ten years ago her present physician found "below the umbilicus, nodules in the abdomen, glandular or tubercular." There was no fluid in the abdomen and no increase in temperature. Under iron the nodules faded out. From that time till the present her health has been fair.

Six weeks ago she had sudden abdominal pain with vomiting. A physician found in the right upper quadrant a mass which he thought a gall-bladder. This attack was brief and she was soon able to be up. There was soon a repetition of these symptoms with fever; several other similar attacks followed.

The present one began ten days ago. There was a tender mass in the epigastrium running downward toward the right flank. There was no jaundice with this or any previous attacks. The temperature was a little elevated in the afternoon. The digestion was and had been fairly good; there had been no loss of weight except under diet.

The father and mother lived to be old but died of tuberculosis. One

brother died of chronic nephritis.

On cross examination the patient said that there was no real pain at any time, but a soreness came on instead—a distress under the arm-pit downward. Later in the attack she was nauseated and vomited. There was no sharp pain, she repeated, only an ache. No blood was ever found in the vomitus, urine, or feces.

The urine showed a specific gravity of 1009; alb., slight trace; sugar, none; Sed., calcic oxalate crystals; rare hyaline and granular casts; rare

squamous cells; rare small round cells.

Physical examination at this time showed nothing abnormal in the abdomen.

January 6, 1909, she was able to come to Boston and reported herself as feeling much better. There was no discomfort at all. Two weeks

before this visit she felt a small bunch in the abdomen to the right of the navel and a little above it. The bunch has persisted. A tumor, round, somewhat irregular and nodulated, could be felt a little above and to the right of the umbilicus. It was tender and tympanitic and did not move up or down with respiration. It could not be moved in any direction.

The general appearance was good, much improved over examination of November 3. The pulse and temperature were normal. The appetite was good. She had gained weight. There was no evidence of intestinal obstruction. All tests for blood in the urine, stools, and vomitus were

negative.

What is your diagnosis?

If you cannot make a positive diagnosis, what are the probabilities, and upon the probabilities what course of treatment would you advise?

Based upon skilful treatment, whether medical or surgical, what is your

prognosis?

2. Given a history of a fall on the shoulder or on the elbow with extensive swelling about the joint, with ecchymosis and pain, with or without limited motions of the joint, what examinations would you make?

Answer as briefly as possible.

3. In the presence of acute or chronic abdominal symptoms of uncertain cause or location, give briefly your idea of an adequate physical examination.

OBSTETRICS. - Professor GREEN

- 1. Outline the general supervision of pregnancy, especially with a view to the prevention of toxaemic conditions.
- 2. Define the contraction ring, and explain the physiology of its formation. What are the clinical dangers when the contraction ring is abnormally high?
- 3. What is the normal mechanism of spontaneous delivery in presentation of the face, M. D. P.?
- 4. Suppose that in the above case the normal mechanism fails after the head is within the pelvis, and that delivery is indicated: outline the course you would pursue to effect delivery.
- 5. A multipara with a normal pelvis presents an average sized foetus in Sc. L. A. position. The os uteri is fully dilatable, the membranes are unruptured, and a pulsating funis is felt in the forewaters; the woman and foetus are in excellent condition. Discuss your management of this case.
- 6. A multigravida in the eighth month is found to have an ovarian cyst filling the pelvis, but causing no symptoms. Attempts to raise the tumor by taxis under anaesthesia are without result. How would you deal with this case?
- 7. In alighting from a carriage, a multigravida in the ninth month falls prone upon the sidewalk. Seen some hours later she is found with a rather feeble pulse of 120, a temperature of 97° F., with a pale and anxious face, and complaining of pain over the right side of the abdomen. On palpation the foetus is found in O. L. A. position, with audible but irregular heart sounds; the uterus is asymmetrical, there being a per-

ceptible bulging over the right upper area. There is no evidence of labor, and no vaginal discharge. Diagnosis and treatment?

- 8. Outline the clinical picture of streptococcic puerperal endometritis. The diagnosis having been established by bacteriological examination, how would you treat the case?
- 9. Pyelitis complicating pregnancy: aetiology, diagnosis, prognosis, treatment?
- 10. State concisely the essential principles in the treatment of infants prematurely born.

GYNAECOLOGY. - Professor GREEN

- 1. What are the chief predisposing and exciting causes of pelvic inflammation? If the port of entry is at the cervix uteri, how may the infection reach the pelvic peritoneum? How may the general peritoneum be protected from invasion of infection from the genital tract, and to what extent does this depend on the infecting organism?
- 2. In vulvo-vaginal infection by the gonococcus, what are the clinical appearances? How would you seek to prevent the extension of the infection? What are the difficulties in the way of successful treatment?
- 3. Carcinoma of the cervix uteri: early and late symptoms? diagnosis? What conditions would influence your decision as to radical operation? What can be done to ameliorate symptoms in inoperable cases?
- 4. What are the usual symptoms of retro-flexion of the uterus? How would you differentiate a retro-flexed uterus from a normally placed uterus with a fibro-myoma in the posterior wall? Discuss the results of pregnancy in a freely movable retro-flexed uterus.

DERMATOLOGY .- Professor Bowen

- 1. Dermatitis venenata.
- 2. The treatment of psoriasis.
- 3. Describe a case of pityriasis rosea. How would you differentiate it from psoriasis and tinea circinata?
 - 4. Alopecia areata.
 - 5. The treatment of epithelioma of the skin.

SYPHILIS. — Asst. Professor Post

- 1. What would lead you to think a lesion upon the tongue a primary lesion of syphilis?
- 2. What are the points of difference between an indurated chancre and an ulcerated gumma?
- 3. What is the value of mercury in the treatment of syphilis and how may it be administered?
- 4. What, in your opinion, is the value of the serum diagnosis of syphilis? [Do not give the technique.]
- 5. A patient presents himself with the following story: He was married fourteen years ago. About six months later he had a sore on the genitals

which was pronounced syphilis, and he was treated for that disease for over a year when his physician died. For several months he had no treatment, when a scaling disease on the palms caused him to consult a noted dermatologist who treated him by inunction for about three years,

with the addition of iodide of potash the latter part of the time.

Later, trouble with his throat and tongue sent him to a throat specialist, who pronounced the disease syphilis and treated him chiefly with iodide of potash for nearly two years. At the end of that time he was discouraged and asked at one of our largest hospitals to be referred to a reliable practitioner. The doctor to whom he was sent examined him with great care for about two hours and told him he could not have had syphilis as he showed no cicatrix from a primary sore, and that he was suffering from excessive doses of iodide of potash, which he must stop. The abandonment of the drug was followed by temporary improvement, but the disease in the tongue soon recurred in more troublesome form. He was then sent to another throat specialist, who expressed his belief that the disease was syphilis. He excised a piece of the tongue for examination, but the pathologist failed to make a diagnosis.

The patient has no idea how he could have contracted syphilis. His

wife has never shown any signs of the disease.

At the present time he has on one side of the tongue an infiltrated spot with an opaline surface, little if any loss of substance, no lymph nodes in the vicinity. Its gross appearance is that of syphilis and it is said to resemble spots which have been present on the tongue much of the time for several years. It was absent for perhaps two years, but has recently returned. Patient is entirely discouraged by this return. He wants to know whether he has syphilis. Why doctors do not agree and what he is to do about medicine. Whether he is a source of danger.

What will you say to him and what will you prescribe?

NEUROLOGY. - Professor PUTNAM

1. A man, 45 years of age and in perfect health, was struck on the side of the head and felled to the ground by a sign board falling from a height of ten feet. There was no period of unconsciousness and he rose at once to his feet in a somewhat dazed condition and sat for a few moments on a nearby door step, complaining of feeling dizzy. After a period of five or six minutes he continued on his way declaring that he felt all right.

Several hours later the patient complained of a dull frontal headache and was much alarmed by two attacks of clonic spasm of the left arm, which he was unable to control, each of them lasting from two to three

minutes.

A physician was summoned, but by the time he arrived (about six hours after the accident) the patient was found in a state of coma from which he could not be aroused. The breathing was heavy and stertorous, the face was flushed. The right pupil was dilated widely, the left normal in size, and neither reacted to light. The pulse was full, regular, and of moderately high tension, the rate being 58. There was a haematoma on the left side of the head in the parietal region, apparently the result of the recent trauma, for the skin was freshly broken over its surface. The left arm and leg were more limp than the right. The knee jerk was exaggerated on the left side, and stroking the side of the left foot gave rise to the Babinski reflex. The temperature, taken by the rectum, was 98.

Diagnosis? Prognosis? Treatment?

State the different sorts of pathological lesions liable to occur from such an injury.

(1) What are the signs and symptoms of a tumor causing marked compression of the spinal cord at the level of the cervical enlargement?

(2) Name briefly all the signs and symptoms of tabes dorsalis you can recall.

PSYCHIATRY. -- Dr. Cowles

- 1. Describe some of the variations of the thresholds of excitation in reflex arcs with reference to the Melancholia-Mania symptom-groups.
 - 2. Describe briefly the "Involution Psychoses."
- 3. What reasons can you give for considering the commonly recognized forms of mental disease as "combined psychoses"—with examples?

4. Case. — A man, age 48; married; dentist; born in Massachusetts; father died at 51 of cerebral hemorrhage, mother at 55 of renal disease; patient always healthy; common school education; began business at 14; habits good; first attack, — duration five months.

He "lost everything" in the Chelsea fire, April, 1908; had difficulty in recovering practice and worried over losses; became "nervous" especially at night, and this increasing five months ago, he paced the floor constantly, talked much of his bad business; lost weight and became neglectful of his person. With persistent despondency he had hypochondriacal ideas: that he had "tuberculosis," "cancer of the throat," "pleurisy," and again "stagnation of the blood." In the three weeks before admission to hospital, his memory appeared rather poor for recent events; had difficulty in talking to his patients, and in understanding them; it was a great effort to work.

In Hospital, March 9, 1909. Despondent and inactive; answers to questions brief, but relevant, — slowly given in low voice. Has feared syphilis, but admitted it was without reason; he said: "I got worse and worse since after that," "lost all ambition," "I was all fatigued." "Head felt confused" during past month; sometimes has a "dark shadow" before his eyes and fears loss of sight. It is difficult for him to remember what he reads, — after repeated tests, he said: "It is strange I can't recall it," "my mind must be in a bad state;" calculates very poorly; fairly well oriented for time, place, and person, gives correctly some facts of personal history and recent events, but fails to recall others.

March 16. At an examination for a special clinical report the foregoing observations and tests were repeated with like results. He was somewhat restless, grasping head in hands and murmuring "Oh Dear," "Oh God," and the like. In a reply said he was not afraid of losing his mind, but "my brain is running away," "afraid it is going to give out;" said, "my eyesight is fading away." Simple questions are answered quite rapidly, whereas more complicated problems are solved slowly or not at all, being soon given up on trying. He has had two "spells" of agitation and feeling dazed; asked why he was so noisy at those times he said he "was frightened." Such questions appeared to make him suspicious; he has suspected poison in his food and takes very little; grew fidgety under effort to answer questions and gets confused easily. At last date the physical examination was practically negative except evidences of weak-

ness and being poorly nourished; and there is a visible pulsation of radial arteries which are somewhat thickened and roughened. A more complete examination was not then available, but further evidences of arterio sclerosis were suspected as extremely likely to appear.

Give diagnosis, analysis of symptoms, and prognosis.

OPHTHALMOLOGY. - Asst. Professor Standish

- 1. Glaucoma.
- 2. Interstitial keratitis. Etiology. History. Treatment.
- 3. Senile cataract. Varieties. Methods of examination and treatment.
- 4. Name the conditions that may cause an optic neuritis.
- 5. A child, 3 years of age, develops a convergent strabismus. Describe the proper management of the case.

OTOLOGY. - Professor BLAKE

- 1. Describe the relative positions in the temporal bone of the external auditory canal, the tympanic and the mastoid cavities.
 - 2. What is the function of the ossicular chain?
- 3. Describe the appearance of the drum-head in an acute inflammation of the middle ear.
 - 4. Under what conditions should the drum-head be incised?
 - 5. Give the pathology of an acute suppurative mastoiditis.
 - 6. Describe the simple mastoid operation.

LARYNGOLOGY. - Professor Coolinge

- 1. Describe submucous resection of the nasal septum.
- 2. Give the ultimate histological results following superficial cauterization of the lower turbinate.
- $3.\ \,$ Draw and describe the post-nasal image as seen in the rhinoscopic mirror.
 - 4. Describe the lateral wall of the pharynx in the adult.
 - 5. Describe tonsillectomy.
- 6. Describe the more common causes, and the results, of paralysis of the recurrent laryngeal nerve.

THE MEDICAL SCHOOL

FOURTH CLASS

Bailey, Charles Hervey, A.B. (Brown Univ.)	
1903,	Dorchester.
Balcom, Kenneth Ira, A.B. (Colgate Univ.) 1905,	Northboro.
Barkan, Hans, A.B. (Leland Stanford Jr. Univ.)	
1905,	San Francisco, Cal.
Bortree, Leo Williams, A.B. (Colorado Coll.)	
1906, C	olorado Springs, Colo.
Bowers, George Francis Haskell, A.B. 1906,	Clinton.
Brayton, Howard Wheaton, PH.B. (Brown Univ.)	
1906,	Providence, R.I.
Burgess, Alexander Manlius, A.B. (Brown Univ.)	
1906,	Portland, Me.
Burwell, Edmund Strudwick, PH.B. (Univ. of	
No. Carolina) 1906,	Charlotte, N.C.
Chase, Peter Pineo, PH.B. (Brown Univ.) 1906,	Hyannis.
*Clarke, Harry Carver,	Fall River.
Clarke, Oliver Holman, A.B. (Leland Stanford Jr.	
Univ.) 1906,	Boston.
Corcoran, George Bartlett, A.B. (Brown Univ.)	
1906,	W. Springfield.
Cring, George V, s.B. (Earlham Coll.) 1906,	* 55
A.B. (Univ. of Michigan) 1908,	Portland, Ind.
Crothers, Bronson, A.B. 1905,	Cambridge.
Cunningham, Thomas Edward, Jr., A.B. 1906,	Cambridge.
Cutler, George David, s.B. 1907,	Brighton.
Dages, Oren Newton, A.B. (Princeton Univ.)	
1906,	Columbus, O.
Dane, Charles Murphy, A.B. 1906,	Brookline.
Dane, John Murphy, s.B. 1907,	Brookline.
Draper, Warren Fales, A.B. (Amherst Coll.)	
1906,	Newton Highlands.

^{*} Admitted by special vote of the Administrative Board.

Savoy, Ill.

Dunlap, Albert Menzo, A.B. (Univ. of Illinois)

1906,

Faison, Yates Wellington, A.B. (Davidson Coll.)

Finney, Royal Houghtelin, A.B. (Kansas Univ.) 1907.

Forbes, Alexander, A.B. 1904, A.M. 1905, French, Ralph Winward, A.B. 1907,

Gaboury, George Napoleon, A.B. (Yale Univ.) 1907,

Gamble, James Lander, A.B. (Leland Stanford Jr. Univ.) 1906,

Gardner, Edwin Daniels, A.B. 1906,

Gerber, Isaac, A.B. 1907,

Grady, James Edward, Jr., A.B. (Holy Cross Coll.) 1906,

Haigh, Gilbert William, A.B. 1907,

Harrington, Amos Thomson, A.B. (Yale Univ.)

1894, s.t.b. (*ibid.*) 1897, Hegarty, Joseph Gordon, A.B. 1907,

Hellmann, Robert Richard, A.B. 1906,

Howes, Frank Miller, A.B. 1907,

Irving, Frederick Carpenter, A.B. 1906, Jacques, Hector, A.B. (Laval Univ.) 1899,

Jennings, Alpheus Felch, A.B. (Univ. of Michigan) 1907,

Joslyn, Arthur Everett, s.B. (Northwestern Univ.) 1903, A.M. (Harvard Univ.) 1904,

Kelley, Clarence Moore, A.B. 1906, Kellogg, Foster Standish, A.B. 1906,

Leonard, Ralph Davis, A.B. 1907,

Libby, Harold, A.B. 1907,

Lightbody, William Russell, Ph.B. (Brown Univ.) 1906,

Lindsay, John Crandall, A.B. (Colby Coll.) 1906,

*Lippman, Caro Wolf,

MacAusland, Andrew Roy, s.B. 1907,

McCarty, James Joseph, Jr., A.B. 1907,

McCrossan, Charles Leo, A.B. 1907,

MacMichael, Earle Haggett, A.B. (Bowdoin Coll.) 1907,

Madden, Leon Irving, A.B. (Clark Univ.) 1905,

Charlotte, N.C.

La Junta, Colo.

Milton.
Fall River.

Chicopee Falls.

Palo Alto, Cal.

Holliston.

Malden.

Clinton.

Lawrence.

Roxbury.

Lyons, N.Y.

Somerville.

Cincinnati, O.

Rockland.

Ogdensburg, N.Y.

St. Hyacinthe, Can.

Detroit, Mich.

Beachmont.

Milton, N.H.

Boston.

Melrose.

Roxbury.

Manchester, N.H.

Waterville, Me.

San Francisco, Cal.

Boston.

Lowell.

Somerville.

E. Boston.

, Agawam.

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Mahoney, Matthew Patrick, A.B. (Georgetown Univ.) 1906,

Marble, Henry Chase, A.B. (Clark Univ.) 1906, Meader, Charles Nash, A.B. (Colby Coll.) 1906,

Miller, Richard Henry, A.B. 1905,

Moore, George Albert, s.B. 1907,

Palmer, Walter Walker, s.B. (Amherst Coll.) 1905.

Parcher, George, A.B. (Bowdoin Coll.) 1906,

Phillips, Charles Lewis, A.B. (Bates Coll.) 1906,

*Popoff, Constantine,

Porter, Emery Moulton, Ph.B. (Brown Univ.)

Ryder, Charles Tripp, A.B. 1906,

Shedd, George Harold, A.B. 1905,

*Sheppard, Philip Albert Edward, Stellenbosch, Cape Town, So. Africa. Smith, Harold Heber, A.B. (Leland Stanford Jr. Univ.) 1905,

*Starr, Samuel,

Stine, Dan Gish, A.B. (Univ. of Missouri) 1907, Tarleton, Leeson Oren, Ph.B. (Brown Univ.)

1906.

Chicago) 1907, *Twombly, James Woodbury,

Walsh, John Gormley, A.B. (Brown Univ.) 1906,

Terrell, Alexander Bismarck, s.B. (Univ. of

Lowell. Worcester. Waterville, Me.

Fitchburg.

No. Monroe, N.H.

Southfield.

Ellsworth, Me.

Lewiston, Me.

Sliven, Bulgaria.

Boston.

Andover.

No. Conway, N.H.

Worcester.

Roxbury.

Hopkinsville, Ky.

Concord, N.H.

Fort Worth, Tex.

Boston.

Providence, R.I.

THIRD CLASS

*Austin, Richard Sisson,

Bacher, Johann Adolph, A.B. (Leland Stanford Jr. Univ.) 1899,

Bagg, Edward Parsons, Jr., A.B. (Yale Univ.) 1907,

Birnie, Richard, Jr., s.B. 1907,

Blaisdell, John Harper, A.B. (Dartmouth Coll.) 1907.

Breslin, John George, A.B. 1908,

Briggs, Asa Sheldon, Ph.B. (Brown Univ.) 1907,

*Bruce, Jacob Baldwin, Jr.

Buckley, George Ambrose, A.B. (Brown Univ.) 1907,

Providence, R.I.

San José, Cal.

Holyoke.

Charleston, S.C.

Winchester.

Charlestown.

Ashaway, R.I.

Allston.

Brockton.

^{*} Admitted by special vote of the Administrative Board.

Cahill, Henry Philip, A.B. (Holy Cross Coll.) 1907, Chickering, Henry Thorndyke, A.B. 1907, Clark, Frank Robinson, A.B. (Wesleyan Univ.)

Clark, William Arthur, A.M. (Univ. of Illinois) 1907.

Clymer, George, A.B. 1905,

Cochrane, Robert Carlyle, s.B. (Dartmouth Coll.) 1907,

Cogswell, Eliot Sanborn, A.B. (Dartmouth Coll.)

Crabtree, Harvard Hersey, A.B. 1907,

Creamer, William Henry, A.B. (Holy Cross Coll.) 1907,

*Cronin, Herbert Joseph,

Dawson, Roger Paul, A.B. (Holy Cross Coll.)

Day, Alexander Alfred, A.B. (Clark Univ.) 1906, Dempsey, James Edward, A.B. (Holy Cross Coll.)

Dulligan, Peter James, A.B. (Holy Cross Coll.) 1907,

Duston, Frank Algar, A.B. (Univ. of New Brunswick) 1898,

Emerson, Paul Waldo, A.B. 1907,

Enos, John Silveira, A.B. (Brown Univ.) 1907,

Eustis, Richard Spelman, A.B. 1907, Eversole, George Edwin, A.B. 1907,

Feeley, Walter Clarence, A.B. 1908,

Finnegan, Frank Augustine, A.B. (Holy Cross

Coll.) 1907,

Finnegan, Philip Joseph, A.B. 1908,

Forbes, Henry Stone, A.B. 1905, Frank, Morris, A.B. 1908 (1907),

Fraser, Somers, A.B. 1907,

Gaunt, Frank Peyton, A.B. (Univ. of Missouri) 1906.

Greenebaum, Jacob Victor, A.B. 1908 (1907),

Gruening, Ernest Henry, A.B. 1907,

Worcester.

Somerville.

Woburn.

Urbana, Ill.

Washington, D.C.

Somerville.

Stratford, Conn. Hancock, Me.

Fall River. Fitchburg.

Waterbury, Conn. Everett.

Milford.

Worcester.

St. Stephen, N.B. Cheyenne, Wyoming. Providence, R.I. Cambridge. Seattle, Wash. Cambridge.

Lowell. Salem. Boston. Boston. E. Weymouth.

Brookline. Cincinnati, O. Grover, Joseph Isaac, A.B. (Brown Univ.) 1907, Providence, R.I. New York, N. Y.

^{*} Admitted by special vote of the Administrative Board.

Haight, Harry William, A.B. (Princeton Univ.)

Hammond, John Wilkes, Jr., A.B. (Dartmouth Coll.) 1907,

Harris, Herbert Elisha, A.B. (Brown Univ.) 1907, Hedblom, Carl Arthur, A.B. (Colorado Coll.) 1907, A.M. (ibid.) 1908,

Hill, Prescott Tillinghast, A.B. (Brown Univ.) 1906, Boston.

Hornor, Albert Aurelius, A.B. (Univ. of Virginia) 1907.

Hunt, Robert Bates, A.B. (Clark Univ.) 1907, Knowlton, Charles Colby, A.B. (Bowdoin Coll.) 1906,

Lazarus, Louis, A.B. 1906,

Leland, George Adams, Jr., A.B. 1907,

Lincoln, George Chandler, A.B. 1905,

McCann, Charles Daniel, PH.B. (Brown Univ.) 1907,

McCarty, Franklin Bennett, s.B. (Univ. of Notre Dame) 1907.

Main, Roscoe Conkling, A.M. (Univ. of Illinois) 1907,

Marshall, Frank Fremont, A.B. 1907,

Means, James Howard, A.B. 1907,

Morrill, Ashley Baker, s.B. 1908,

Murphy, John Joseph, A.B. (Holy Cross Coll.)

Nelson, Luther Townsend, A.B. (Boston Univ.) 1905,

O'Hare, James Patrick, A.B. 1908 (1907),

O'Keefe, Edward Scott, A.B. 1907,

Penix, John Harvey, A.B. (William Jewell Coll.)

Percy, Karlton Goodsell, A.B. (Yale Univ.) 1907, Perry, Harold Edgar, A.B. 1907,

*Peterson, Hugo Oliver,

Pierce, Glenn McKillips, Ph.B. (Westminster Coll.) 1906,

Porter, Miles Fuller, Jr., A.B. (Williams Coll.)

Prizer, Edward Levis, A.B. 1908 (1907),

Mendota, Ill.

Cambridge.

Providence, R.I.

Aurora, Neb.

Helena, Ark. Brockton.

Ellsworth, Me.

Roxbury.

Boston. Worcester.

Brockton.

Lynn.

Pittsfield, Ill.

Worcester.

Boston.

Concord, N.H.

Cambridge.

Roxbury.

Milton.

Lynn.

Bowling Green, Mo.

Brookline.

Brookline.

Worcester.

W. Elizabeth, Pa.

Fort Wayne, Ind.

So. Orange, N.J.

^{*} Admitted by special vote of the Administrative Board.

Reynolds, Ralph Leavitte, A.B. (Colby Coll.) 1906,

Richards, Dexter Newell, A.B. (Leland Stanford Jr. Univ.) 1907,

Richardson, Russell, A.B. (Princeton Univ.) 1904.

Robinson, Henry Ashton, A.B. 1908,

Ruggles, Howard Edwin, A.B. (Leland Stanford Jr. Univ.) 1907,

Sheldon, Russell Firth, A.B. 1907,

Smith, William David, A.B. 1899,

Temple, William Franklin, Jr., A.B. 1908,

Thompson, Austin Bassett, A.B. (Williams Coll.) 1907,

Thompson, Victor Veranus, A.B. (Bowdoin Coll.) 1890,

Tobey, Harold Grant, A.B. (Bowdoin Coll.) 1906,

Whidden, Rae Wygant, A.B. 1908,

White, Paul Dudley, A.B. 1908,

Waterville, Me.

Gridley, Cal.

Brookline. Hingham.

Ross, Cal.

Gardner.
Boston.

Orange, N.J.

Ashland. Clinton.

Portland, Ore.
Roxbury.

SECOND CLASS

Abbott, John Woodward, A.B. (Bates Coll.) 1905, Alcuzar, Isaac, A.B. (Univ. of Wisconsin) 1908, Alter, Samuel Mitchell, A.B. 1909 (1908),

Baker, Donald Vinton, A.B. 1908,

Barton, Lyman Guy, Jr., A.B. (Princeton Univ.) 1908,

Bauer, Louis Hopewell, A.B. 1909,

Bean, Charles Franklin Kingsbury, A.B. (Tufts Coll.) 1907,

Bedrossian, Edward Hagop, A.B. (Anatolia Coll., Turkey) 1904,

Behlow, William Wallace, A.B. (Leland Stanford Jr. Univ.) 1907,

Bell, Richard Dana, A.B. 1908,

Binney, George Hayward, Jr., A.B. 1908,

Brennan, Daniel Clarke, A.B. 1907,

Brown, Harold Learned, A.B. (Brown Univ.) 1907,

Butler, Fergus Almy, A.B. 1908,

Chandler, Harold Beckles, A.B. (Bowdoin Coll.) 1907,

Lewiston, Me.
Boston.
Revere.
Roxbury.

Willsboro, N. Y. Jamaica Plain.

W. Medford.

Marsovan, Turkey.

Redlands, Cal. Somerville. Boston. Cambridge.

Sioux City, Ia. Danvers.

W. Newton.

Coffin, Whitman King, A.B. 1909,

Coller, Frederick Amasa, s.m. (So. Dakota State Coll.) 1908,

Comstock, Carl Rodney, A.B. 1908,

Crabtree, Ernest Granville, PH.B. (Univ. of Wooster) 1906,

Donovan, Joseph Aloysius, A.B. (Bates Coll.) 1908.

Elliott, Malcolm Robertson, A.B. (Acadia Univ.) 1908,

Farnsworth, Earle Edwin, A.B. (Cornell Univ.) 1903,

Hackett, Lewis Wendell, A.B. 1905,

Harvie, Peter Lyons, A.B. 1908,

Hersam, Norman Paul, s.B. (Univ. of California) 1908,

Houghton, James Tilley, A.B. 1908,

*Jones, Ellis William,

Knowlton, Don Jerome, A.B. 1908,

Lacey, Walter Maurice, A.B. (Williams Coll.) 1908, Cheyenne, Wyoming. Look, Percy Jonathan, A.B. (Boston Univ.) 1908, Lyman, Henry, A.B. 1901,

MacAdam, Guy James, A.M. (Univ. of New Brunswick) 1904,

Meyers, Alfred Edward, A.B. (Leland Stanford Jr. Univ.) 1907,

Miller, Edwin Lee, A.B. (Univ. of Missouri) 1908.

Minot, George Richards, A.B. 1908,

Mueller, Otto Henry, A.B. (State Univ. of Iowa)

Murphy, Joseph Leroy, A.B. 1909,

O'Shea, William Michael, A.B. (Gonzaga Coll.) 1907.

Parker, Raymond Brewer, s.B. (Dartmouth Coll.) 1908,

*Perlstein, Isidor,

Porter, Donald Wallace, A.B. (Yale Univ.) 1908,

Pratt, Ezekiel, A.B. 1909,

Rackemann, Francis Minot, A.B. 1909,

Ramsey, Wayne Stevenson, A.B. (Washington and Jefferson Coll.) 1908,

W. Medford.

Los Angeles, Cal.

Saratoga Springs, N.Y.

Zanesville, O.

Houlton, Me.

Clarence, N.S.

Grand Island, Neb. Belmont, Cal.

Everett, Wash.

Stoneham.

Saratoga Springs, N. Y. Boston.

Marion.

Farmington, Me. Ponkapoaq.

Woodstock, N.B.

Spokane, Wash.

Norborne, Mo. Boston.

Iowa City, Ia. Taunton.

Spokane, Wash.

Reading.

Cassel, Germany. New Haven, Conn.

Cohasset.

Readville.

Coraopolis, Pa.

^{*} Admitted by special vote of the Administrative Board.

Reed, Floyd Orton, s.B. (Univ. of Rochester) 1907, Berkshire, N.Y. Reggio, André William, A.B. 1908, Boston. *Rockey, Eugene Watson, Portland, Ore. Rogers, Orville Forrest, Jr., A.B. 1908, Dorchester. Rounsefell, Clifford George, A.B. 1907, Cambridge. Smillie, Wilson George, A.B. (Colorado Coll.) 1908, Eaton, Colo. Talbot, John Edward, A.B. 1902, LL.B. 1905, Holliston. Thomas, Charles Francis, Jr., A.B. (Bowdoin Coll.) 1907, Caribou, Me. Tribou, Howard Arthur, s.B. (Colby Coll.) 1908, Rockport, Me. *Wesselhoeft, Conrad, Cambridge. Wilson, Philip Duncan, A.B. 1909, Columbus, O. Woody, MacIver, A.B. (Richmond Coll.) 1905, A.B. (Harvard Univ.) 1907, Louisville, Ky.

FIRST CLASS

Atwater, Collins, A.B. (Williams Coll.) 1909, Westfield. Blake, Francis Gilman, A.B. (Dartmouth Coll.) 1908, Brookline. Borden, Russell Potter, A.B. (Mt. Allison Coll.) 1908, Lower Canard, N.S. Brown, Herbert Rutherford, s.B. (Univ. of Rochester) 1901, Jamaica Plain. Buffum, William Potter, Jr., A.B. (Brown Univ.) Newport, R.I. Carter, James Charles, A.B. (De Pauw Univ.) 1909. Shelbyville, Ind. Cobb, Stephen Aratas, Jr., A.B. (Bates Coll.) 1909. Gardiner, Me. Clark, DeWitt Scoville, Jr., A.B. (Yale Univ.) 1909. Salem. Cole, Norman Brown, A.B. 1909, Newport, R.I. †Cunningham, Allan Rowe (Harvard), Gloucester. Curtis, Charles Samuel, A.B. (Clark Univ.) 1909, Spencer. Cutler, Elliott Carr, A.B. 1909, Brookline. Davidson, Douglas Treat, A.B. (Yale Univ.) 1909, Warren, Pa. †Denny, George Parkman (Harvard), Chestnut Hill.

^{*} Admitted by special vote of the Administrative Board.

[†] Has completed work in Harvard College for the A.B. degree.

†Dolan, William Francis (Harvard),

Douglass, Charles York, A.B. (Leland Stanford Jr. Univ.) 1908,

Favill, John, A.B. (Yale Univ.) 1909,

Faulkner, James Francis, A.B. (Bates Coll.) 1908,

†Ferguson, Luther Mitchell (Harvard),

Frost, Harold Maurice, A.B. (Brown Univ.) 1909,

Gilchrist, John Milton, s.B. (Cornell Coll.) 1909, Goodwin, Ralph Augustus, A.B. (Bates Coll.)

Grady, Thomas Francis, A.B. (Holy Cross Coll.) 1908.

Greene, Jeremiah Augustine, A.B. 1909,

Grinnell, Francis Browne, A.B. 1909, Hill, Lewis Webb, A.B. 1910 (1909),

Hinton, William Augustus, s.B. 1905,

Howard, Herbert Handy, s.B. (Tufts Coll.) 1909,

Hull, Ira Butler, A.B. (Bates Coll.) 1908, Jacobs, Irving William, A.B. 1909,

Jaranian, Dicran David, A.B., S.B. (Central School, Constantinople) 1906,

Kilgore, Alson Raphael, s.B. (Univ. of California) 1909,

Krout, Boyd Merrill, Ph.B. (Ohio Univ.) 1909, Krusen, Francis Twining, A.B. (Ursinus Coll.)

1909, Lavelle, Thomas Eugene, A.B. (Georgetown

Univ.) 1909, Lennox, William Gordon, A.B. (Colorado Coll.)

Leonard, Edward DeWitt, A.B. (Amherst Coll.) 1909.

Lieb, Clarence William, A.B. (Colorado Coll.) 1908, A.M. (ibid.) 1909,

Liu, Jui Heng, s.B. 1909,

MacKnight, William Frank, A.B. (Holy Cross Coll.) 1908.

MacPherson, Warren, s.B. 1907, A.M. 1908, †Morrison, William Reid (Harvard), Somerville.

Boston.
Chicago, Ill.

Gardiner, Me. Newton.

Tiverton, R.I. Waukon, Ia.

Lincoln, Me.

Clinton.
Cambridge.
Brookline.
Jamaica Plain.
Kansas City, Kan.
Somerville.
Lewiston, Me.
Boston.

Harpoot, Armenia.

Fruitvale, Cal. Dresden, O.

Norristown, Pa.

Butte, Mont.

Colorado Springs, Colo.

Brattleboro, Vt.

Manzanola, Colo. Tientsin, China.

Fall River.
Bridgeton, N.J.
Boston.

[†] Has completed work in Harvard College for the A.B. degree.

Providence, R.I. †Neves, Charles Serpa (Harvard), †Nigro, Michele (Harvard), Revere. O'Sullivan, William Daniel, L.B. (Dartmouth Coll.) 1900, Lawrence. Pierson, Philip Hale, A.B. (Yale Univ.) 1908, Wellesley Hills. +Shain, Abraham Isidor (Harvard), Roxbury. †Shapira, Albert Abraham (Harvard), Boston. Sheehan, Edward Bernard, A.B. (Boston Coll.) 1909, Roxbury. †Sisonsky, Michael (Harvard), E. Boston. Stevens, Harold Wentworth, A.B. (Bates Coll.) 1906. Saco, Me. †Stoddard, James Leavitt (Harvard), Northampton. Strong, Seth Lake, A.B. (Oberlin Coll.) 1909, Oberlin, O. Terrall, John Jay, s.B. (Cornell Coll.) 1907, Hudson, Ia. Walker, Melvin Harvey, Jr., A.B. (Yale Univ.) 1909, Westboro. Warren, Charles Fletcher, PH.B. (Brown Univ.) Auburn, R.I. 1909. Webber, Wolfert Gerson, A.B. 1909, Brookline. Wentworth, Edward Tubbs, A.B. 1909, Batavia, N.Y. Wentworth, John Alexander, A.B. (Bowdoin Coll.) 1909, Portland, Me. Wickham, Thomas William, A.B. (Holy Cross South Lee. Coll.) 1909,

SPECIAL STUDENTS TAKING REGULAR WORK

*Benet, George, Columbia, S.C.
*Meserve, Edwin Alonzo, Allston.

 ‡Anderson, Frank William, s.B. (Dartmouth Coll.) 1908,
 E. Boston.

 ‡Boretti, Albert Ferdinand,
 Novara, Italy.

 ‡Morse, Sterne,
 Brookline.

 ‡Robinson, Carl Merrill, A.B. (Bowdoin Coll.)
 Portland, Me.

† Has completed work in Harvard College for the A.B. degree.

^{*} Students admitted under requirement on page 19, paragraph 2, of the Catalogue.

[‡] Admitted by special vote of the Administrative Board prior to May 1, 1909.

SPECIAL STUDENTS

Dixon, Patrick Joseph Harkins, A.B. (Holy

Cross Coll.) 1895,

Millard, Jean Sears,

O'Donoghue, Edward James,

Pattajo, Christ. Alexander,

Roz

Russell, John Scott, A.B. (Williams Coll.) 1907, Whitford, Robert Atwood, A.B. 1908, Boston.
Brookline.
Chestnut Hill.
Roxbury.
Massena, N. Y.
Waltham.

Courses for Graduates

(October 1, 1908, to June 1, 1909)

Abbott, Harlan Page, A.B. (Brown Univ.) 1885, A.M. (ibid.) 1889, M.D. (Harvard Univ.) 1889, Aiken, Thomas Francis, M.D. (Univ. of Pennsylvania) 1894,

Allen, Seabury Wells, A.B. 1891, M.D. 1897, Arnold, Douglas Perkins, M.D. (*Univ. of Buffalo*) 1908.

Baker, Roscoe Chase, A.B. (Yale Univ.) 1900, M.D. (Denver and Gross Med. Sch.) 1907,

Balch, Marion Casares, A.B. (Bryn Mawr Coll.) 1902,

Barter, George Halcomb, s.B. (Boston Univ.) 1885, m.D. (Columbia Univ.) 1888,

Beach, Sylvester Judd, A.B. 1901, M.D. 1905, Beck, Clyde McKay, Ph.G. (Univ. of the South)

1906, M.D. (Coll. of Phys. and Surg., Memphis) 1908,

Beck, Horace Palmer, M.D. (Univ. of Pennsylvania) 1897, D.D.S. (ibid.) 1898,

Beebe, Linn Clair, M.D. (Baltimore Med. Coll.) 1895,

Berry, William Christopher, M.D. (*Tufts Med. Sch.*) 1907,

Blakely, David Newton, A.B. (Dartmouth Coll.) 1889, M.D. (ibid.) 1896,

Bliss, Edward Lydston, A.B. (Yale Univ.) 1887, M.D. (ibid.) 1891,

Bostock, Gertrude Dorman, B.S. (Glasgow Univ.) 1900, M.B.CH.B. (ibid.) 1903, Providence, R.I.

Boston.
Boston.

Buffalo, N.Y.

Billerica.

Jamaica Plain.

Washington, D.C. Augusta, Me.

Memphis, Tenn.

Newport, R.I.

Hamilton, N.Y.

Charlestown.

Boston.

Newburyport.

Boston.

Bradford, Lester Belmont, M.D. (Maryland Med. Coll.) 1905,

Brennan, John Joseph, M.D. 1886,

Brooks, Fletcher Hastings, s.B. (Trinity Coll., N.C.) 1896, M.D. (Baltimore Med. Coll.) 1902,

Byrnes, Harry Francis, M.D. (Baltimore Med. Coll.) 1904,

Bull, Tillinghast, Ph.B. (Yale Univ.) 1888, M.D. (Columbia Univ.) 1902,

Callahan, John Francis, M.D. (Tufts Med. Sch.) 1906,

Carboni, Giovanni, M.D. (Univ. of Naples) 1892, Carlton, Frank Carr, S.B. 1903, M.D. 1908,

Carvill, Lizzie Maud, A.B. (Tufts Coll.) 1899, M.D. (ibid.) 1905,

Cook, Edward Chase, M.D. (Med. Sch. of Maine) 1894.

Courtney, Angelia Martha, A.B. (Radcliffe Coll.) 1906,

Cunningham, John Henry, Jr., M.D. 1902, Curry, Edmund Farnham, M.D. 1896,

Daly, Timothy Joseph, M.D. 1897,

Dana, Harold Ward, A.B. 1900, M.D. 1905,

Darling, Byron Clary, A.B. (*Illinois Coll.*) 1898, M.D. (*Harvard Univ.*) 1903,

Davis, Ashton Weymouth, s.B. (Wesleyan Univ.) 1900, A.M. (Columbia Univ.) 1909,

Derby, Frederick William, M.D. (Tufts Med. Sch.) 1905.

Dial, Howard Benjamin,

Dodd, Isaac Spencer Finney, M.D. (Medical Dept., New York Univ.) 1890,

Farmer, Chester Jefferson,

Faxon, Nathaniel Wales, A.B. 1902, M.D. 1905,

FitzGerald, John Gerald, M.B. (Toronto Univ.) 1903,

Fitzgerald, Thomas, A.B. (Boston Coll.) 1893, M.D. (Harvard Univ.) 1897,

Gale, Minot Winch, M.D. (Univ. of Vermont) 1907,

Garceau, Edgar, M.D. 1890,

Garrett, Frank Steele, M.D. (Baltimore Med. Coll.) 1898,

Gellhorn, Walter, M.D. (Univ. of Munich) 1904,

So. Lyndeboro, N.H. Worcester.

Baltimore, Md.

Worcester.

Newport, R.I.

Brockton.
Boston.
Salem.

Somerville,

York Village, Me.

Concord.
Boston.
Fall River.
Lawrence.
Boston.

New York, N.Y.

Charlestown.

Arlington.

Dayton, O.

Pittsfield.
Andover.
Stoughton.

Toronto, Can.

Brighton.

Onset.
Boston.

Chelsea.

Boston.

George, Arthur Phillips, M.D. (Dartmouth Coll.) 1896,

Grant, William Herbert, M.D. 1896,

Guild, Frederick Washburn,

Halterman, Charles Warner, M.D. (Eclectic Med. Institute, Cincinnati) 1889,

Hendee, Leslie Horatio, M.D. (Baltimore Med. Coll.) 1894,

Holmes, Arthur Brewster, A.B. 1896, M.D. 1907, Hunt, Ernest Leroi, M.D. 1902,

Ingoldsby, Joseph Emmanuel, M.D. 1898,

Jee, Shin Fwe Pond Mooar, M.D. (Univ. of California) 1908,

Jones, Henry Weely, A.B. (Colby Coll.) 1905,Jordan, William Henry, M.D. (Maryland Med. Coll.) 1901,

Kober, Philip Adolph,

Lahey, Frank Howard, M.D. 1904,

Litchfield, William Harvey, M.D. 1882,

Little, Stillman David, M.D. (Medical Sch. of Maine) 1903,

Livingston, Clarence Bertram, M.D. (Baltimore Med. Coll.) 1903,

Lobo, José Paulo, M.D. (Escola Medico-Cirurgica, Lisbon, Portugal) 1900,

Long, Alfred Dow, M.D. 1907,

McCain, William Robert, M.D. (Univ. of Maryland) 1897,

McCullough, Edward Aloysius, A.B. (Bowdoin Coll.) 1890, M.D. (Harvard Univ.) 1894,

MacDonald, Donald Francis, M.D. (Coll. of Phys. and Surg., Baltimore) 1894,

McEvoy, George Albert, m.D. 1899,

McFee, William David, M.D. (Univ. of Vermont) 1897,

McGaffin, Charles Gibson, Ph.B. (Hamilton Coll.) 1904, M.D. (Albany Med. Coll.) 1908,

Mack, William Gansevoort, M.D. (Albany Med. Coll.) 1900,

Macrae, Annie Campbell, M.D., C.M. (Trinity Coll., Toronto) 1899,

Mahoney, Stephen Andrew, A.B. (Holy Cross Coll.) 1885, M.D. (Harvard Univ.) 1889,

Haverhill.
Boston.

Roslindale.

Clarksburg, W. Va.

Pitts field.

Kingston.

Worcester.

Dorchester.

San Francisco, Cal. Brookline.

Providence, R. I. Freedom, Pa.

Boston.
Brookline.

Caribou, Me.

Lowell.

Cambridge. Berkeley, Cal.

Waxhaw, N.C.

Worcester.

Taunton.
Roxbury.

Haverhill.

Taunton.

Auburn, N.Y.

Fall River.

Holyoke.

Manrique, Francisco Jil,

Marshall, Herman Prince, M.D. (Harvard Univ.) 1904, A.B. (Washington State Coll.) 1908,

Marshall, William Reginald, M.D. (Baltimore Med. Coll.) 1908,

Marvell, Mary Wilbur, s.B. (Wellesley Coll.) 1894, M.D. (Johns Hopkins Med. Sch.) 1900,

May, George Elisha, M.D. (Boston Univ.) 1890, Morrison, John Sheppard, M.D. (Med. Coll. of Ohio) 1897,

Myers, Samuel William, M.D. 1902,

Nealley, Willis Grafton, M.D. (Dartmouth Med. Sch.) 1907,

Nelson, Louis, A.B. 1900, M.D. 1904, A.M. 1905, Nevin, Clement Channing, M.D. (Yale Univ.) 1908,

Pearson, Charles Lusby, M.D. (Univ. of Maryland) 1883,

Pettibone, Chauncey J. Vallette, s.B. (Univ. of Chicago) 1907,

Powers, William Joseph, M.D. (Baltimore Med. Coll.) 1902,

Preston, Benjamin Spotswood, PH.G. (Univ. Coll. of Med., Richmond, Va.) 1894, M.D. (Coll. of Phys. and Surg., Baltimore) 1902,

Proctor, Percy Clement, M.D. 1894,

Quinby, William Carter, A.B. 1899, M.D. 1902,

Reinherz, George, M.D. (Tufts Med. Sch.) 1908, Reynolds, Ogden Hoffman, M.D. (Kentucky Sch.

of Med.) 1888, Richmond, Ernest Dalton, M.D. (Univ. of Ver-

mont) 1894, Riemer, Hugo Bruno Carl, A.B. (Bucknell Univ.)

1906, M.D. (Harvard Univ.) 1904, Ring, Arthur Hallam, M.D. (Boston Univ.) 1897,

Ring, Arthur Hallam, M.D. (Boston Univ.) 1897, Robinson, Samuel, A.B. 1898, M.D. 1902,

Ryder, Delano Richmond, M.D. (Univ. of Vermont) 1904,

Sears, Frederick William, M.D. (Univ. of Vermont) 1888,

Sears, Harry Edward, A.B. 1893, M.D. 1896,

Shapleigh, Elizabeth Adelaide,

Bogota, Colombia, S.A.

Pullman, Wash.

Lynn.

Fall River.

Newton Centre.

La Fayette, Ind. Boston.

So. Berwick, Me.

Roxbury.

Edgartown.

Newton.

Evanston, Ill.

Worcester.

Charleston, W. Va.

Boston.
Boston.

Boston.

Frankfort, Ky.

Reading.

Norwood.

Arlington Heights.
Boston.

Marion.

So. Hero, Vt.

Beverly.

Brookline.

Sheldon, William Hills, M.D. (Cornell Univ.) 1906.

Smith, Homer Brandel, A.B. 1900, M.D. 1903, Stanwood, Frederic Arthur, A.B. (Bowdoin Coll.) 1902, M.D. (Harvard Univ.) 1907,

Sturtevant, Charles Alton, M.D. (Boston Univ. Sch. of Med.) 1899,

Sullivan, John Thomas, M.D. 1897,

Taft, Annie Elzina, M.D. (Tufts Med. Sch.) 1907, Talbot, Fritz Bradley, A.B. 1900, M.D. 1905,

Todd, James Campbell, Ph.B. (Univ. of Wooster) 1897, M.D. (Univ. of Pennsylvania) 1900,

Vogel, George Louis, M.D. 1900,

Wallace, John, (Queen's Coll., Belfast, Ireland) 1893,

Washburn, Chester Angus, M.D. (Hahnemann Med. Coll.) 1908,

Whitcomb, Clement Colfax, M.D. (Med. Sch. of Maine) 1891,

Whitmore, Frank Beach, s.B. (State Univ. of Illinois) 1898, M.D. (Dunham Med. Coll.) 1899.

Wilson, George Brinton McClellan, M.D. (Dartmouth Med. Sch.) 1888,

Young, Tilden Hendricks, M.D. (Tulane Univ.) 1903,

New York, N. Y.

Boston.

Boston.

Manchester, N.H.
Boston.

Chestnut Hill.
Boston.

Denver, Colo.
Boston.

Roxbury.

Everett.

Washington, D.C.

Nanking, China.

Duxbury.

Bedford, Ala.

THE SUMMER SCHOOL OF MEDICINE

(June 1, 1909, to October 1, 1909)

Achorn, Kendall Lincoln, s.B. 1903, Boston. Alexander, James Frederick, A.B. (Vanderbilt Univ.) 1891, M.D. (ibid.) 1903, Blocton, Ala. Allen, George Smith, M.D. (Univ. of Buffalo) 1897, Clyde, N.Y. Alsever, William Dewey, s.B. (Syracuse Univ.) 1896, M.D. (ibid.) 1900, Syracuse, N.Y. Anderson, Frank William, s.B. (Dartmouth Coll.) 1908. Boston. Anderson, Wilhelm, M.D. (Univ. of Minnesota) Warren, Minn. Aurand, William Henry, M.D. (Univ. of Minnesota) 1901, Minneapolis, Minn. Bacher, Johann Adolph, A.B. (Leland Stanford Jr. Univ.) 1899, San José, Cal. Bagg, Edward Parsons, Jr., A.B. (Yale Univ.) 1907, Holyoke.

Bailey, Charles Hervey, A.B. (Brown Univ.) 1903,

Bates, Everett Alanson, A.B. (Yale Univ.) 1886, M.D. (Harvard Univ.) 1890, Baughman, William Henry,

Bautista, Andres,

Bebb, Rose Anne, B.L. (Univ. of Minnesota) 1891, м.D. (ibid.) 1897,

Bethune, Charles William, M.D. (Univ. of Buffalo) 1905,

Bigelow, Edward Bridge, A.B. (Dartmouth Coll.) 1900, M.D. (Harvard Univ.) 1904,

Blaisdell, John Harper, A.B. (Dartmouth Coll.) 1907.

Blake, William Ford, A.B. (Leland Stanford Jr. Univ.) 1896, M.D. (Cooper Med. Coll.) 1902, Blodgett, John Hammond, M.D. 1897,

Boettiger, Carl, M.D. (Cornell Univ.) 1903, Long Island City, N.Y. Boretti, Albert Ferdinand, A.B. (Royal Technical Institute of Turin, Italy) 1903,

Boston.

Winchester.

Worcester.

Dorchester.

Springfield. Richmond, Va.

Iloilo, P.I.

Seattle, Wash.

Buffalo, N.Y.

San Francisco, Cal. Boston.

Bosher, Robert Semple, Jr., A.M. (Univ. of Virginia) 1897, M.D. (Univ. Med. Coll., Va.) 1900, Bouchelle, Louis Brown, Jr., M.D. (Atlanta Med.

Coll.) 1891,

Brackett, Arthur Stone, a.B. (Yale Univ.) 1892, m.d. (Jefferson Med. Sch.) 1895,

Breslin, John George, A.B. 1908,

Bresnahan, John Francis,

Briggs, Asa Sheldon, ph.b. (*Brown Univ.*) 1907, Brown, Herbert Rutherferd, s.bc. (*Univ.* of

Rochester) 1901,

Brown, Walter Murray, M.D. (Univ. of Minnesota) 1902,

Bryant, John Edmund, M.D. (Dartmouth Coll.) 1901,

Bullitt, James Bell, A.B. (Washington and Lee Univ.) 1894, A.M. (ibid.) 1895, M.D. (Univ. of Virginia) 1897,

Burnett, Henry Winans, M.D. (Long Island Coll. Hosp.) 1897,

Butler, Charles, M.D. (Univ. of Virginia) 1897, Calkin, Barry Howes, M.D. (McGill Univ.) 1891, Calvert, Sidney, s.B. (McGill Univ.) 1890, A.M. (Harvard Univ.) 1892,

Campbell, Stephen,

Carroll, Walter Richard,

Cartin, Harry James, M.D. (Jefferson Med. Coll.) 1901,

Caswell, Charles Oscar, M.D. (Med. Sch. of Maine) 1900,

Charles William Arthur W. D. (Puch Me

Chamberlin, William Arthur, M.D. (Rush Med. Coll.) 1882,

Champion, Merrill Edwin, A.B. 1902, M.D. 1906, Cheney, Alice Maude,

Clark, Frank Robinson, A.B. (Wesleyan Univ.) 1900,

Clymer, George, A.B. 1905,

Coan, Thomas Patrick, A.B. (Mt. St. Joseph's Coll.) 1903,

Cobb, Gardner Nathan, A.B. (Dartmouth Coll.) 1901, M.D. (ibid.) 1904, Richmond, Va.

New Smyrna, Fla.

Bristol, Conn. Charlestown.

Roxbury.
Ashaway, R.I.

Jamaica Plain.

St. Thomas, No. Dak.

Haverhill.

Oxford, Miss.

Providence, R.I. Washington, D.C. Jamaica Plain.

Columbia, Mo. Philadelphia, Pa. Brookline.

Johnstown, Pa.

Portland, Me. Fall River.

Waseca, Minn. Arlington. Jamaica Plain,

Woburn.

Washington, D.C.

Baltimore, Md.

White River Junction, Vt.

Cochrane, Harold Duncan, M.D. (New York Homoeopathic Coll. and Hosp.) 1898,

Coffin, Frank Herbert, Ph.G. (Mass. Coll. of Pharm.) 1894, M.D. (Boston Univ.) 1900,

Coon, Clarence Erford, M.D. (Coll. of Med., Syracuse Univ.),

Cowan, Clyde Robert,

Cowles, William Lee, s.B. (Virginia Polytechnic Inst.) 1904, M.D. (Med. Coll. of Virginia) 1908,

Crabtree, Harvard Hersey, A.B. 1907,

Culham, Hubert Anthony,

Cutler, Charles Newton, M.D. 1898,

Cutler, James Tucker, A.B. (Williams Coll.) 1890, M.D. (Harvard Univ.) 1894,

Daly, Timothy Joseph, M.D. 1897,

Daniels, Thomas Henry, M.D. (Univ. of Virginia) 1902.

Davidson, Albert Alonzo, M.D. (Vanderbilt Univ.) 1893,

Davis, George Anthony, M.D. (Jefferson Med. Coll.) 1903,

Davis, John Spencer, M.D. (Med. Dept., Tulane Univ.) 1908,

Davis, John Staige, A.M. (*Univ. of Virginia*) 1888, M.D. (*ibid.*) 1889,

Dodge, Ralph Oscar,

Douglas, Archibald John, M.D. (Albany Med. Coll.) 1903,

Douglass, Charles York, A.B. (Leland Stanford Jr. Univ.) 1908,

Doust, Henry Burton, M.D. (Syracuse Univ.) 1900.

Dowd, Ambrose Francis,

Eustis, Richard Spelman, A.B. 1907,

Eversole, George Edwin, A.B. 1907,

Falcon, Arthur Jean Baptiste, M.D. (Laval Univ., Montreal) 1905,

Feeley, Walter Clarence, A.B. 1908,

Ferrin, Carlisle Franklin, A.B. (Univ. of Vermont) 1891, M.D. (Coll. of Phys. and Surg., New York) 1895,

Forbes, Henry Stone, A.B. 1905,

Albany, N.Y.

Haverhill.

Syracuse, N.Y.
Bakersfield, Vt.

Williamsburg, Va. Hancock, Me. Hamilton, Ont. Chelsea.

Roxbury. Lawrence.

University, Va.

Augusta, Ga.

Lynn.

Dallas, Texas.

University, Va. Hyde Park.

Westfield.

Jamaica Plain.

Syracuse, N.Y. Hillsboro, N.H. Cambridge. Seattle, Wash.

Pawtucket, R.I. Cambridge.

New London, Conn. Milton.

Foster, Sidney Dix, M.D. (Med. Dept., Univ. of Cincinnati) 1900,

Fox, Walker Henry, M.D. (State Univ. of Iowa) 1905.

Fraser, Somers, A.B. 1907,

Gay, Samuel Gilbert, M.D. (Med. Dept., Univ. of Alabama) 1887,

Gibbs, Susan Harris, M.D. (Boston Univ.) 1908, Gilchrist, George Miller, M.D. (Albany Med. Coll.) 1898,

Gimbrone, Joseph Peter, M.D. (Univ. of Buffalo) 1909,

Grady, Henry Matthew, M.D. 1905,

Gregory, Louise Hoyt, A.B. (Vassar Coll.) 1903, A.M. (Columbia Univ.) 1907, PH.D. (ibid.) 1909, Greenebaum, Jacob Victor, A.B. 1908,

Hagen, Olaf Jenson, M.D. (Univ. of Minnesota) 1906,

Haight, Harry William, A.B. (Princeton Univ.) 1902,

Hamilton, Arthur Stephen, s.B. (State Univ. of Iowa) 1894, M.D. (Univ. of Pennsylvania) 1897,

Hammond, John Wilkes, Jr., A.B. (Dartmouth Coll.) 1907,

Harrington, Amos Thomson, A.B. (Yale Univ.) 1894, s.T.B. (ibid.) 1897,

Harris, Herbert Elisha, A.B. (Brown Univ.) 1907, Hart, Aubrey Warren,

Hawley, George, M.D. (Univ. and Bellevue Hosp. Med. Coll.) 1899,

Hedblom, Carl Arthur, A.B. (Colorado Coll.) 1907, A.M. (ibid.) 1908,

Henderson, George Dallos, M.D. (Western Reserve Univ.) 1900,

Herbert, Edward, M.D. (Columbia Univ.) 1902, Heyd, Charles Gordon, A.B. (Univ. of Toronto) 1905, M.D. (Univ. of Buffalo) 1909,

Hill, Prescott Tillinghast, A.B. (Brown Univ.) 1906,

Hornor, Albert Aurelius, A.B. (Univ. of Virginia)

Houghton, Henry Lincoln, s.B. (Polytechnic Institute) 1889, M.D. (Harvard Univ.) 1894, Winchester.

Toledo, O.

Waucoma, Ia. E. Weymouth.

Selma, Ala. Danvers.

Groton, N.Y.

Buffalo, N.Y. East Dedham.

Princeton. Cincinnati, O.

Moorhead, Minn.

Mendota, Ill.

Minneapolis, Minn.

Cambridge.

Jamaica Plain. Providence, R. I. Lynn.

Baldwinsville, N.Y.

Aurora, Neb.

Holyoke. Fall River.

Buffalo, N.Y.

Boston.

Helena, Ark.

Hoyt, Charles Wentworth, A.B. 1902, M.D. 1905, Rock Hoyt, Gordon Way, M.D. (Hering Med. Coll., Chicago) 1896, Syru 1889, Hubbell, Adelbert Merton, M.D. (Boston Univ.) 1889, Hunt, Robert Bates, A.B. (Clark Univ.) 1907, Brock Jennings, Alpheus Felch, A.B. (Univ. of Michigan) 1907, Detropolation, Franklin Paradise, A.B. (Univ. of Misser)

Johnson, Franklin Paradise, A.B. (Univ. of Missouri) 1908,

Jones, Everett, M.D. (Boston Univ.) 1898,
Jones, Edward Barton, M.D. (George Washington Univ.) 1902,

Jones, Ellis William,

Jones, John Parker, M.D. (Boston Univ.) 1901, Jordan, Ernest Major, M.D. (Boston Univ.) 1899,

Joslyn, Arthur Everett, s.B. (Northwestern Univ.) 1903, A.M. (Harvard Univ.) 1904,

Kepler, Charles Ober, A.B. (Baldwin Univ.) 1887, A.M. (ibid.) 1890, M.D. (Harvard Univ.) 1899,

Kern, Charles Bruce, s.B., A.B. (Wabash Coll.) 1895, M.D. (Chicago Homoeopathic Med. Coll.) 1898,

Kimball, Samuel Ayer, A.B. (Yale Univ.) 1879, M.D. (Harvard Univ.) 1882, M.D. (Boston Univ.) 1883,

Kirkbride, Mary Butler,

Lakeman, Mary Ropes, M.D. (Boston Univ.) 1895,

Lamar, Richard Vanderhoust, M.D. (Univ. of Georgia) 1902,

Lanford, John Alexander, Ph.G. (Alabama Polytechnic Institute) 1900, M.D. (Univ. of Alabama) 1905,

Larkin, Albert Edwin, Ph.B. (Colgate Univ.) 1894, M.D. (Coll. of Med., Syracuse Univ.) 1897,

Leland, George Adams, Jr., A.B. 1907, Lennon, John Marcus Henry,

Lincoln, George Chandler, A.B. 1905,

Livingston, Clarence Bertram, M.D. (Baltimore Med. Coll.) 1903, Rochester, N.Y.

Syracuse, N.Y.

Haverhill. Brockton.

Detroit, Mich.

Brookfield, Mo. Brookline.

Washington, D.C. Boston. So. Boston. Malden.

Winchester.

Boston.

La Fayette, Ind.

Boston.

Philadelphia, Pa.

Salem.

New York, N.Y.

Tuscaloosa, Ala.

Syracuse, N.Y.
Boston.
Jamaica Plain.
Worcester.

Lowell.

Lyman, Henry, A.B. 1901,

Lyons, James Henry, A.B. (Williams Coll.) 1886, M.D. (Albany Med. Coll.) 1890,

Mabry, Greta,

McCall, Daniel Thompson, A.B. (Univ. of Alabama) 1887, M.D. (Louisville Med. Coll.) 1894, McCarty, Franklin Bennett, S.B. (Univ. of Notre

Dame) 1907,

McCullough, Edward Aloysius, A.B. (Bowdoin Coll.) 1890, M.D. (Harvard Univ.) 1894,

McDermott, William Vincent, M.D. 1896,

McFee, William David, M.D. (Univ. of Vermont) 1897,

Mack, William Gansevoort, M.D. (Albany Med. Sch.) 1900,

MacLaren, John Dice, M.s. (Kansas Univ.) 1886, M.D. (Columbia Univ.) 1896,

MacPherson, Warren, s.B. 1907, A.M. 1908,

MacSorley, Harriet Elizabeth,

Manly, Frederick Wolfe, s.B. (Cornell Univ.) 1894, M.D. (Syracuse Univ.) 1897,

Martin, Arthur C., M.D. (Cornell Univ.) 1907,Massman, Alvaro E, M.D. (Bellevue Hosp. Med. Coll.) 1884,

Means, James Howard, A.B. 1907,

Mendlin, Fred Andrew, M.D. (Univ. of Buffalo) 1897,

Mikelsky, Frank, A.B. (Bowdoin Coll.) 1905,

Miller, Alvah Strong, A.B. (Univ. of Rochester) 1907,

Miller, Harry Clay, M.D. (Detroit Coll. of Med.) 1900,

Millet, Charles Sumner, M.D. 1880,

Mink, Owen Joseph, A.B., M.D. (*Univ. of Michigan*) 1904,

Montague, Charles Elbert, A.B. (Williams Coll.) 1891, M.D. (Boston Univ.) 1896,

Morgan, James Dudley, A.B. (Georgetown Univ.) 1881, M.D. (ibid.) 1885,

Muldowney, Esther Emma,

Mulliner, Mary Rees, M.D. (Boston Univ.) 1896, Munger, William Richard, M.D. (Yale Univ.) 1898, Ponkapoag.

Troy, N.Y. No. Vassalboro, Me.

Butler, Ala.

Lynn.

Worcester. Salem.

Haverhill.

Auburn, N. Y.

Holland, Mich. Cambridge. Philadelphia, Pa.

Rensselaer, N.Y. Boston.

Westminster.
Boston.

Buffalo, N.Y. Bath, Me.

Rochester, N.Y.

Hillsdale, Mich. Brockton.

Washington, D.C.

Wakefield.

Washington, D.C. Roxbury. Boston.

Thomaston, Conn.

Murphy, Franklin Edward, M.D. (Univ. of Pennsylvania) 1893,

Myers, Samuel William, M.D. 1902,

Neuhaus, George Emile, M.D. (Bellevue Hosp. Med. Coll.) 1891,

Nielsen, Morris, M.D. (Omaha Med. Coll.) 1900, Noguchi, Hideyo, M.D. (Tokio Univ.) 1899, M.Sc. (Univ. of Pennsylvania) 1907,

Noonan, James Joseph, M.D. (Albany Med. Coll.) 1897,

O'Connor, Thomas Hugh, M.D. (Coll. of Phys. and Surg., Baltimore) 1893,

O'Keefe, Edward Scott, A.B. 1907,

Osgood, Robert Bayley, A.B. (Amherst Coll.) 1895, M.D. (Harvard Univ.) 1899,

Ostergren, Christian Vilhelm,

Patty, Louis Greenlee, M.D. (Jefferson Med. Coll.) 1893,

Percy, Karlton Goodsell, A.B. (Yale Univ.) 1907, Peterson, Hugo Oliver,

Porter, Miles Fuller, Jr., A.B. (Williams Coll.) 1907,

Pritchard, William Percival, M.D. 1900, Pulsifer, Nathan, A.B. (Bates Coll.) 1899, Redden, William Rufus, A.B. (Bates Coll.) 1906, Reeves, Marcellus, M.D. 1890,

Regan, Catherine,

Reid, Henry Squire, Ph.B. (Syracuse Univ.) 1907, Ritter, John, M.D. (Rush Med. Coll.) 1880,

Robbins, Elliott Daniel, M.D. 1879,

Robinson, Carl Merrill, A.B. (Bowdoin Coll.) 1908,

Robinson, Henry Ashton, A.B. 1908,

Rodeheaver, Joseph Newton, s.B. (Ohio Wesleyan Univ.) 1901, A.M. (ibid.) 1902, PH.D. (Boston Univ.) 1907,

Rohde, Max, s.B. (Univ. of Chicago) 1908,

Ruggles, Howard Edwin, A.B. (Leland Stanford Jr. Univ.) 1907,

Sawyer, Charles Robert, Ph.B. (Wesleyan Univ.) 1906,

Schuster, George Ralph, M.D. (Miami Med. Coll.) 1897,

Kansas City, Mo. Boston.

Denver, Colo. Sioux City, Ia.

New York, N.Y.

Cohoes, N.Y.

 $Boston. \ Lynn.$

Boston. Stockholm, Sweden.

Carroll, Ia.
Brookline.
Worcester.

Fort Wayne, Ind.
Fall River.
Auburn, Me.
Roxbury.
Boston.
New York, N. Y.
Rome, N. Y.
Chicago, Ill.

Portland, Me. Hingham.

Brookline.

Brookings, So.Dak. Princeton, Ill.

Ross, Cal.

Glens Falls, N.Y.

Dayton, O.

Sedgwick, Julius Parker, sc.B. (Univ. of Nebraska) 1896, m.D. (Rush Med. Coll.) 1899, Sheldon, Russell Firth, A.B. 1907,

Sisley, Beatrice Sophia,

Smith, Edward Shepard, M.D. (Albany Med. Coll.) 1899,

Smith, Peter Mathew, M.D. (Georgetown Univ.) 1894,

Smith, William David, A.B. 1899,

Stearns, Thornton, A.B. (Davidson Coll.) 1906,

Steel, Matthew, B.Sc. (New Mexico Agric. and Mech. Coll.) 1901, M.Sc. (ibid.) 1902, Ph.D. (Columbia Univ.) 1908,

Sturtevant, Charles Alton, M.D. (Boston Univ.) 1899,

Sullivan, Daniel, M.D. (New York Univ.) 1897, Symonds, Cleon Walter,

Ten Brook, Andrew, M.D. (Jefferson Med. Coll.) 1876,

Tobey, Harold Grant, A.B. (Bowdoin Coll.) 1906, Todd, James Campbell, Ph.B. (Univ. of Wooster) 1897, M.D. (Univ. of Pennsylvania) 1900,

Tolfree, Herbert Myron, M.D. (Bellevue Hosp. Med. Coll.) 1897,

Tracy, Ernest Leslie,

Turley, Louis Alvin, s.B. (Univ. of Idaho) 1903, A.M. (Harvard Univ.) 1906,

Van Wart, Ray McLean, A.B. (Univ. of New Brunswick) 1898, A.M., M.D. (McGill Univ.) 1902,

Wadsworth, Richard Goodwin, A.B. 1896, M.D. 1900,

Wallace, John, L.R.C.P. and s. (Univ. of Edinburgh) 1893,

Walsh, Thomas Nelson, A.B. (McGill Univ.)

1889, M.D. (*ibid.*) 1892, Watson, Helen, A.B. (*Wellesley Coll.*) 1905,

Wells, George Harlan, A.B. (Delaware State Coll.) 1899, M.D. (Hahnemann Med. Coll. of Philadelphia) 1902,

Whidden, Rae Wygant, A.B. 1908,

White, Florilla Mansfield, M.D. (Boston Univ.) 1908,

Minneapolis, Minn. Lynn.

Philadelphia, Pa.

Westfield.

 $Boston. \\ Gardner.$

Asheville, N.C.

New York, N.Y.

Manchester, N.H. New London, Conn. Waltham.

Parsons, Kan. Clinton.

Denver, Colo.

Washington, D.C. Burlington, Vt.

Norman, Okla.

New Orleans, La.

Boston.

Roxbury.

Hawkeye, Ia. E. Braintree.

Philadelphia, Pa. Portland, Ore.

Utica, N.Y.

St. Louis, Mo.

White, Paul Dudley, A.B. 1908,
Wilcox, Everard Ansley, s.B. (Davidson Coll.)
1907, A.M. (Univ. of Georgia) 1909,
Willard, William Gleason, M.D. (Rush Med. Coll.)
1898.
Oak Park, Ill.
Williams, Louis Laval, M.D. (Med. Coll. of the
State of So. Carolina) 1880,
Chelsea.
Wynn, Charles Austin, M.D. (Jefferson Med.
Coll.) 1896,
Greensburg, Pa.
Young, Henry McClure, A.B. (Yale Univ.) 1899,

M.D. (Washington Univ.) 1908,

SUMMARY

FOURTH CLASS		
THIRD CLASS	79	
SECOND CLASS		
FIRST CLASS	60	
SPECIAL STUDENTS		
TOTAL .	279	
In Courses for Graduates, October 1, 1908, to June 1,		
1909	111	
In Summer Courses, June 1, 1		
TOTAL .	320	
an in the contract of		
GRADUATES C	OF COLLEGES	
Acadia College 1 Amherst College 3 Annatolia College (Turkey) 1 Bates College 8 Boston College 1 Boston University 2 Bowdoin College 9 Brown University 20 University of California 2 Central School (Constantinople) 1 University of Chicago 1 Clark University 5 Colby College 4 Colgate College 4 Colgate College 5 Cornell University 1 Dartmouth College 8 Davidson College 1 De Pauw University 1 Earlham College 1 Georgetown University 2 Gonzaga College 1 Harvard University 110 Holy Cross College 12 University of Illinois 3 University of Ilvayersity 1 Laval University 1 Laval University	University of Missouri	
Laval University	Number of Colleges , , , , , , 54	

ANNOUNCEMENT FOR 1910-11

The next session of the Medical School begins September 29, 1910. All students are required to register at the Dean's office on this day. Students registering in the University for the first time will meet in Room 205 in the Administration Building of the Harvard Medical School, on Thursday, the 29th of September, at 10 A.M. Students desiring to enter the Harvard Medical School in the first-year class, or with advanced standing, should write prior to this time to the Secretary of the Harvard Medical School, in regard to conditions for admission and the applicant's ability to meet these.

CALENDAR

1910.

- Sept. 22, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 28, Wednesday. Examination in Chemistry for admission.
- Sept. 29, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Nov. 1, Tuesday. Last day for receiving essays for the William H. Thorndike Prize.
- Nov. 24, Thursday. Thanksgiving Day: a holiday.
- Nov. 30, Wednesday. Last day for receiving applications for the Cheever and Hayden Scholarships.

RECESS FROM DEC. 23, 1910, TO JAN. 2, 1911, INCLUSIVE

1911.

- Jan. 2, Monday. Last day for receiving dissertations for the Boylston Medical Prizes.
- Jan. 16, Monday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1911.
- Jan. 26, Thursday. Mid-year Examinations begin.

- Jan. 31, Tuesday. Payment of the second instalment of the tuitionfee is required on or before this date.
- Feb. 1, Wednesday. Second half-year begins.
- Feb. 22, Wednesday. Washington's Birthday: a holiday.
- April 1, Saturday. Last day for receiving dissertations for the Bowdoin Prizes.

RECESS FROM APRIL 16 TO APRIL 22, INCLUSIVE

- May 1, Monday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.
- ${\it May}$ 1, ${\it Monday}.$ Last day for receiving applications for the Bullard Fellowships.
- May 1, Monday. Last day for receiving applications for Scholarships for 1911-12 (except the Cheever and Hayden Scholarships).
- May 1, Monday. Last day for receiving applications of candidates for the degree of M.D. in 1911.
- May 30, Tuesday. Memorial Day: a holiday.
- June 1, Thursday. Examinations begin.
- June 15, Thursday. Examination in Chemistry for admission.
- June 28, Wednesday. Commencement.
- Summer Vacation of Thirteen Weeks, from Commencement to September 28, inclusive
- Sept. 21, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.
- Sept. 27, Wednesday. Examination in Chemistry for admission.
- Sept. 28, Thursday. Academic Year begins. Registration of Students. Payment of the first instalment of the tuition-fee is required on or before this date.
- Nov. 1, Wednesday. Last day for receiving essays for the William H.

 Thorndike Prize.
- Nov. 30, Thursday. Thanksgiving Day: a holiday.
- Dec. 1, Friday. Last day for receiving applications for the Cheever and Hayden Scholarships.



OFFICIAL REGISTER OF HARVARD UNIVERSITY

[Entered, March 24, 1905, at Boston, Mass., as second-class matter, under Act of Congress of July 16, 1894.]

Issued at Cambridge Station, Boston, Mass., twice a month from October to March inclusive, six times a month from April to September inclusive.

These publications include: -

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The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.





